

Sunset Public Hearing Questions for
Southern States Nuclear Compact
and the
Southern States Energy Board

Created by Section 68-202-601, *Tennessee Code Annotated*
(Sunset termination June 2019)

1. Provide a brief introduction to the Southern States Nuclear Compact, including information about its mission, purpose, and duties. Who, in Tennessee, has the primary responsibility for execution of provisions of the compact?

The Southern States Nuclear Compact, known today as the Southern States Energy Compact, is a non-profit interstate compact organization created in 1960 and established under Public Laws 87-563 and 92-440. As stated in the compact legislation, the Southern States Energy Board (SSEB) acts as an agency of the party states and territories. Member states and territories include: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virginia, West Virginia, the Commonwealth of Puerto Rico and the U.S. Virgin Islands. The Board is comprised of three members from each party state who have primary responsibility for execution of provisions of the compact: the Governor, a member of the State Senate and a member of the State House of Representatives. In addition, any member of the Board may provide for the discharge of his duties and the performance of his functions by appointing an alternate to the Board.

A governor serves as chairman and legislators serve as vice-chair and treasurer. Ex-officio, non-voting board members include a federal representative appointed by the President of the United States, the Southern Legislative Conference Energy and Environment Committee Chair, and SSEB's executive director, who serves as secretary.

SSEB was created by state law and consented to by Congress with a broad mandate to contribute to the economic and community well-being of the citizens of the southern region. The Board exercises its mandate through the creation of programs in the fields of energy and environmental policy research, development and implementation, science and technology exploration and related areas of concern.

The Board's mission is to enhance economic development and the quality of life in the South through innovations in energy and environmental programs, policies and technologies. As an institution that has led to economic growth in the South, SSEB endeavors to reach the goal of sustainable development by implementing strategies that support its mission. SSEB develops, promotes and recommends policies and programs that protect and enhance the environment without compromising the needs of future generations.

2. Describe the relationship between the Southern States Nuclear Compact and the Southern States Energy Board.

The Southern States Energy Board is a non-profit interstate compact organization dedicated to providing southern states with technical, administrative, legal and policy expertise, and advice on energy and environmental affairs. Founded by the southern governors 58 years ago, the Board was formally established on September 25, 1961, in Nashville, Tennessee. Later in 1961, Tennessee enacted the Board into state law as the Southern States Nuclear Compact under Tennessee Code Annotated Section 68-23-601, et seq. Public Law 87-563, enacted in 1962, and granted federal consent to the compact.

Originally dedicated to nuclear issues and named the Southern Interstate Nuclear Board, the Board's purview was expanded into other energy and environmental issues by member governors and legislators. The name was changed to the Southern States Energy Board (SSEB) to reflect this broader scope and purpose in the late 1970s. The state of Tennessee changed the name and purview in 1980.

3. Article II(a) provides that the Southern States Energy Board shall be comprised of three members from each party state one member being appointed by each of the following: the Governor, the Senate, and the House of Representatives. Who are these three appointees? When were they appointed? When do their terms expire?

The Governor's appointee member is currently vacant. The position most recently was held by Robert Martineau, Tennessee Department of Environment and Conservation, until he left TDEC in April 2018. A new appointee has been requested but not named as of September 13, 2018.

The Senate members include Senate Majority Leader Mark Norris and Senator Ken Yager as his alternate. Leader Norris was appointed by Lieutenant Governor Ronald Ramsey, on April 30, 2015. Senator Yager was appointed by Leader Norris on September 8, 2016.

The House of Representatives member is Representative John Ragan, who was appointed by Speaker Beth Harwell on January 30, 2017.

Upon change in administration, these appointments are subject to review whereby reappointments or new appointments must be made.

4. Article II(b) provides that each member state has one vote on the board, determined by majority vote of the three members from the member state, or majority vote of those present and voting. How often is the vote of the Tennessee delegation not a unanimous vote? What were the issues involved?

During the business session of SSEB's annual meeting, a financial report and budget are presented for approval by the Board. In addition, Board members may present policy positions for approval. The Tennessee Board members have voted unanimously on all issues and matters presented to the Board.

5. What other states have entered into the compact with Tennessee? Have any of the 17 states enumerated in Article VIII(a) of the compact as eligible states, not entered into the compact? If so, which ones? What is their reason for not entering into the compact?

Sixteen southern states and two territories comprise the membership of SSEB. The compact members are: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, U.S. Virgin Islands, Virginia, and West Virginia. Delaware is eligible to join the Board but never entered into the compact. Specific reasons are unknown.

6. Have any party states withdrawn from the compact or filed notice of their intentions to withdraw under the provisions of Article VIII(c)? If so, which states and what were their stated reason for withdrawing?

No party state has withdrawn from the compact since its inception.

7. Article II(k) requires the board to file an annual report with the Governor of each member state, with copies provided to each state's legislature. Have annual reports been filed? If so, please attach a copy of the last report.

Each year the annual report is presented to the Governors at the Board's annual meeting. Governors not attending the annual meeting receive the report by mail. In addition, SSEB mails the annual report to each state's legislature and other interested parties such as state energy, environmental, and economic development officials. A financial report supplements the annual report for each year. The 2017 annual report is provided as an attachment.

8. What is the cost to Tennessee for the state to participate in the compact? What types of expenses are involved?

The annual appropriation for Tennessee is **\$34,267**.

The annual appropriation is based on population, per capita income and an equal share.

Population \$8,285

Per Capita Income \$8,657

Equal Share \$17,325

Expenses Involved

Regional and State Specific Research Projects

Salaries

Overhead

Printing and Postage

Conference and Travel

9. Article III(a) and (b) require the board to submit a budget to the executive head or designated officer of each state, the budget to “contain specific recommendations of the amount or amounts to be appropriated by each of the party states.” Please attach the budgets for the last two fiscal years and describe how the amount apportioned to Tennessee complies with the apportionment provisions contained in Article III(b).

The annual budget is based on projected state appropriations, federal funding, and associate membership dues. Projected revenues for state appropriations are based on an equal share from each state, per capita income, and population.

The budget for each fiscal year is presented at the SSEB annual meeting. The SSEB members vote to approve the proposed budget for the upcoming fiscal year. The approved budget is mailed to all Board members who were not in attendance at the annual meeting.

See the budgets for FY2017 and FY2018 on the following pages.

SOUTHERN STATES ENERGY BOARD
PROPOSED BUDGET: JULY 1, 2016 THROUGH JUNE 30, 2017
Approved 9/26/2016

DIRECT COSTS

State Services	\$299,582
Federal Projects	\$454,303
Administrative, Operating and Indirect Costs	\$1,409,849
Building Maintenance, Equipment and Furniture	\$125,000
Annual Meeting	\$140,000

TOTAL DIRECT AND INDIRECT COSTS \$2,428,733

PROJECTED INCOME

State Appropriations	\$594,858
Associate Membership Dues	\$130,000
Carbon Sequestration Sponsorships	\$25,000
Federal Contracts/Grants/Special Projects (Direct Labor and Indirect Costs)	\$1,413,875
Annual Meeting Sponsorships and Registration fees	\$140,000
** Building Maintenance, Equipment and Furniture	\$125,000

TOTAL PROJECTED INCOME \$2,428,733

Projecting a reduction in the net fund balance in the amount of \$125,000 to cover building maintenance

Please Note: Projected State SubGrants for SECARB and WIPP are not included in the proposed budget for FY2016-2017

**SOUTHERN STATES ENERGY BOARD
PROPOSED BUDGET: JULY 1, 2017 THROUGH JUNE 30, 2018**

DIRECT COSTS

Approved 9/25/2017

State Services	\$303,576
Federal Projects	\$479,017
Administrative, Operating and Indirect Costs	\$1,467,189
Annual Meeting	\$220,000

TOTAL DIRECT AND INDIRECT COSTS \$2,469,782

PROJECTED INCOME

State Appropriations	\$569,561
Associate Membership Dues	\$150,000
SECARB Membership & Sponsors	\$15,000
Federal Contracts/Grants/Special Projects (Direct Labor and Indirect Costs)	\$1,514,721
Annual Meeting Sponsorships and Registration fees	\$220,500

TOTAL PROJECTED INCOME \$2,469,782

Please Note: Projected State SubGrants for SECARB, SOSRA, ECO2S and WPP are not included in the proposed budget for FY2017-2018

SSEB projects the total annual appropriation funding based on the state appropriation schedule. *See State Appropriation Schedule below.*

State Appropriation Schedule

State	Population	Per Capita Income	Equal Share	Proposed Payment
Alabama	\$7,040	\$8,207	\$17,325	\$32,572
Arkansas	\$5,645	\$8,057	\$17,325	\$31,027
Florida	\$19,310	\$10,577	\$17,325	\$47,212
Georgia	\$8,810	\$9,647	\$17,325	\$35,782
Kentucky	\$6,545	\$8,327	\$17,325	\$32,197
Louisiana	\$7,820	\$8,672	\$17,325	\$33,817
Maryland	\$7,655	\$12,212	\$17,325	\$37,192
Mississippi	\$4,685	\$7,067	\$17,325	\$29,077
Missouri	\$8,735	\$10,187	\$17,325	\$36,247
North Carolina	\$10,775	\$8,942	\$17,325	\$37,042
Oklahoma	\$5,828	\$9,359	\$17,325	\$32,512
Puerto Rico	\$5,780	\$2,492	\$17,325	\$25,597
South Carolina	\$5,900	\$8,147	\$17,325	\$31,372
Tennessee	\$8,285	\$8,657	\$17,325	\$34,267
Texas	\$27,695	\$10,382	\$17,325	\$55,402
U.S. Virgin Islands	\$2,015	\$5,957	\$17,325	\$25,297
Virginia	\$9,845	\$11,192	\$17,325	\$38,362
West Virginia	\$3,560	\$7,847	\$17,325	\$28,732
TOTALS	\$155,928	\$155,928	\$311,850	\$623,706

10. Article III(d) requires that the board keep accurate accounts of all receipts and disbursements, the accounts be audited yearly by a qualified public accountant, and the audit be made part of the board's annual report (referenced in question 7). Is the audit report always part of the annual report? Article III(e) requires the accounts of the board to be open at any reasonable time for inspection. Are they and, if so, where?

The audit for SSEB is normally performed in the months of August and September. This ensures that we have pertinent data to report to the Board during the annual meeting. However, the final audit reports are not completed by the auditing agency until late October or November. These reports are mailed to all Board members. Therefore, the audit report is not included in the annual report that is issued at the Board meeting in September.

Our accounting records are considered public information and open to anyone during normal business hours. The records are located at our business office in Peachtree Corners, Georgia.

11. Article V details the powers of the Southern States Energy Board. Please describe the activities of the board and how those activities are related to the powers of the board.

SSEB conducts numerous activities related to the powers set forth under Article V of the compact. The following list entails general activities that the Board uses that comply with its legislative powers.

- Advisory Committees
- Industry Consortia and Partnerships
- Public/Private Coalitions
- Peer Matching and Professional Development
- Memorandums of Understanding
- State Regulatory Processes
- Federal Regulatory Processes
- Technical and Policy Analysis
- Site Support for Demonstration Projects
- Regulatory review of new and innovative technologies for commercialization
- Training state environmental regulators
- Training industry environmental managers
- Information Dissemination

SSEB projects are designed to comply with the powers of the Board and its mission. Brief descriptions of the Board's projects are provided in the attached 2018 Annual Report, which denotes the relationship of the Board's activities and its powers. Current projects and programs include:

Special Projects

- Regional Emergency Motor Fuel Waiver
- Governors Energy Caucus
- Annual Energy Briefing to Southern Legislative Leaders

Programs

- Strategizing an Electric Policy and Regulatory Framework in Puerto Rico
- Southeast Regional Carbon Sequestration Partnership (SECARB)
- Southeast Offshore Storage Resource Assessment (SOSRA)
- Project ECO2S
- Southeast Regional Carbon Storage Partnership
- SECARB-Ed
- Committee on Clean Coal Energy Policies and Technologies
- Transuranic Waste Transportation
- Southern Emergency Response Council
- Radioactive Materials Transportation Committee
- Foreign Research Reactor Spent Nuclear Fuel Transportation
- Energy and Environment Legislative Digest

In return for appropriations rendered by its members, the Southern States Energy Board provides value-added services. *See answer to question 7.*

12. Describe any items related to the board that require legislative attention and your proposed legislative changes.

Currently there are no items related to the Board or compact that require legislative action.

13. Should the board be continued? To what extent and in what ways would the absence of the board endanger the public health, safety or welfare of Tennessee citizens?

Tennessee's continuing participation in the compact is critical not only to the state but also to the region and other member states. All of the activities of the Board as described under previous questions, assist the southern region in the development of a sound economy, proper utilization and diversity of energy sources, and increased industrialization, while providing for adequate protection of the environment to ensure public health, safety and welfare. In addition, SSEB often undertakes state-specific projects with those same goals in mind.

Listed below are value-added services Tennessee and its citizens receive as a member of the compact.

- **Obtaining funding** for state and regional projects at the request of its membership, committees and working task forces (this funding provided as a pass-through to states generally is far in excess of appropriations paid to SSEB by its members);
- **Negotiating collective funding** for member states on programs that support energy and environmental research, education and training, technology development, regulatory reform and other key issue areas;

- **Funding** the direct participation of state officials in projects and activities in order to enable states to remain current on new programs, trends and technologies while decreasing the impact of travel on member state budgets;
- Working directly with businesses and industries on specific **economic development** projects that create and sustain **jobs** and expand the economy;
- Providing regional forums, conferences and workshops in member states that stimulate and promote **economic development**;
- Conducting **training** and other professional development activities that address energy and environmental programs and technologies; and
- Providing **research** and recommending **solutions** to specific issues on request of member state officials and businesses.

The following chart indicates the influx of resources SSEB provides to Tennessee as a member as well as the impact on and involvement of Tennessee public officials.



SOUTHERN STATES ENERGY BOARD

Continuing Programs Updated for 2018



Tennessee Appropriation to SSEB = \$34,267

Total Benefits to Tennessee from SSEB = \$5,242,430

Waste Isolation Pilot Plant (WIPP)* Subgrant awarded to fund the safe transportation of transuranic waste from Savannah River Site to the WIPP in Carlsbad, NM	
Tennessee Emergency Management Agency, 2015 to Current Funding	\$655,346
Tennessee Emergency Management Agency, 1999 to 2015	\$1,904,216
<i>*The WIPP program pays for portions of 10 TN state government jobs each year.</i>	
Southeast Regional Carbon Sequestration Partnership (SECARB) Phase II Awarded to:	
Marshall Miller & Associates, Inc., Field Test 2, Coal Bed Methane, FY 2005-2011	\$1,171,000
Marshall Miller & Associates, Inc., Task 10, FY 2009-2011	\$758,389
Direct Benefits to Tennessee from SSEB	
\$4,385,951	
Future Benefits to Tennessee through SSEB Programs	
Remaining WIPP Budget for FY 2019 (July 1, 2018-June 30, 2019)	\$222,479
WIPP Funding Estimated for FY 2020	\$250,000
<i>*This will support portions of 10 Tennessee state employee salaries for the FY2020 fiscal year</i>	
Future Benefits to Tennessee through SSEB Programs	
\$472,479	
Additional Benefits to Tennessee through SSEB Programs	
SSEB Committee on Clean Coal Energy Policies & Technologies Meeting in conjunction with VCEA in Kingsport, TN on May 20-22, 2018	
125 est. attendees (125 x \$1000-lodging, food, transportation)	\$125,000
Conference Costs for Meeting	\$27,000
SSEB Joint Radioactive Materials Transportation Committee Winter Meeting in Nashville, TN on December 5-8, 2017	
50 est. attendees (50 x \$1000-lodging, food, transportation)	\$50,000
Conference Costs Associated with SSEB meeting	\$15,000
Southern Emergency Response Council Meeting in Memphis, Tennessee on August 20-21, 2017	
	\$12,000
SSEB Committee on Clean Coal Energy Policies & Technologies Meeting in conjunction with VCEA in Kingsport, TN on May 21-23, 2017	
125 est. attendees (125 x \$1000-lodging, food, transportation)	\$125,000
Conference Costs for Meeting	\$27,000
Continued Economic Benefits & Environmental Impacts to Tennessee as a result of the RBEP Program Continued Committee Participation on all Existing Programs and Future Programs Continued Support to Tennessee through New Technologies and Partnerships (including the Southeastern Regional Carbon Sequestration Partnership)	
Additional Benefits to Tennessee through SSEB	
\$381,000	
Total Benefits to Tennessee from SSEB	
\$5,242,430	

ATTACHMENTS

- SSEB 2017 AUDITED FINANCIAL REPORT
- SSEB 2017 ANNUAL REPORT
- SSEB 2018 ANNUAL REPORT

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Southern States Energy Board
(A Not-For-Profit Governmental Organization)

**Financial Statements and
Compliance Reports**

June 30, 2017 and 2016



Southern States Energy Board

(A Not-for-Profit Governmental Organization)

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June 30, 2017 and 2016

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Independent Auditor's Report

To the Members of
Southern States Energy Board

Report on the Financial Statements

We have audited the accompanying financial statements of Southern States Energy Board (the Board) (a not-for-profit governmental organization), which comprise the statements of financial position as of June 30, 2017 and 2016 and the related statements of activities and changes in net assets and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

BETTER TOGETHER

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Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Southern States Energy Board as of June 30, 2017 and 2016 and the changes in their net assets and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis information on pages 5-8 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Board's basic financial statements. The accompanying schedule of expenses, adjustments and claimed costs is presented for purposes of additional analysis and is not a required part of the basic financial statements. The schedule of expenditures of federal awards is presented for purposes of additional analysis as required by *Title 2 U.S. Code of Federal Regulations (CFR) Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and is also not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenses, adjustments and claimed costs and the schedule of expenditures of federal awards are fairly stated, in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 20, 2017, on our consideration of the Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Board's internal control over financial reporting and compliance.

Bennett Thasher LLP

October 20, 2017

Southern States Energy Board

(A Not-for-Profit Governmental Organization)

Management's Discussion and Analysis

For the Years Ended June 30, 2017 and 2016 - Unaudited

Management's Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic financial statements and supplemental information. The MD&A represents management's examination and analysis of Southern States Energy Board's (the Board) financial condition at June 30, 2017 and 2016 and of its performance for the years then ended.

Overview of the Basic Financial Statements

Using the Basic Financial Statements and Supplemental Information

The basic financial statements report information about the Board as a whole, or as an entire operating entity, using the accrual basis of accounting as utilized by most businesses in the private sector. As a governmental organization, the Board follows the accounting permitted in standards issued by the Governmental Accounting Standards Board (GASB), which allows governmental not-for-profit entities that have applied the accounting and financial reporting principles in standards issued by the Financial Accounting Standards Board to continue to do so, pending GASB pronouncements on the accounting and financial reporting model for government entities. These basic financial statements consist of statements of financial position, statements of activities and changes in net assets, statements of cash flows, and notes to financial statements. Supplemental information is also provided.

Statements of Financial Position

The statements of financial position present the financial position of the Board with information on all of the Board's assets and liabilities, with the difference reported as net assets. Over time, increases and decreases in net assets are one indicator of whether the financial position of the Board is improving or deteriorating.

Statements of Activities and Changes in Net Assets

The statements of activities and changes in net assets present the results of the Board's operating activities over the course of the fiscal year and information as to how the net assets changed during the year. These statements show support received by the Board in the form of contracts or grants from governmental agencies, revenue from member states for research, technical staff support, policy and program development, membership dues, and special project revenue. These statements show how support and revenue received by the Board were applied to various program and supporting expenses.

Statements of Cash Flows

The statements of cash flows present the changes in cash and cash equivalents, resulting from operating, investing, and financing activities. These statements present cash receipts and cash disbursements information without consideration of the earnings event, the date or period in which an obligation arises or the depreciation of capital assets.

Notes to Financial Statements

The notes to financial statements provide required disclosures and other information that are essential to a full understanding of the material data provided in the financial statements. The notes present information about the Board's organization and its accounting policies, significant account balances and activities, material risks, obligations, commitments, contingencies, and subsequent events, if any.

Supplemental Information

Supplemental information detailing Board expenses claimed from member states and expenditures of federal awards is also provided.

Summary of Organization and Business

The Board's organization is described in Note 1 to the financial statements.

Financial Analysis

The following comparative condensed financial statements, reported for the Board as a whole, serve as key financial data for management, monitoring and planning.

Condensed Statements of Financial Position

	2017	2016
Assets:		
Current assets	\$ 6,363,649	\$ 2,003,213
Capital assets	<u>295,437</u>	<u>245,984</u>
Total assets	<u>\$ 6,659,086</u>	<u>\$ 2,249,197</u>
Liabilities:		
Current liabilities	<u>\$ 5,734,167</u>	<u>\$ 1,386,785</u>
Total liabilities	<u>\$ 5,734,167</u>	<u>\$ 1,386,785</u>
Net assets:		
Invested in capital assets, net of related debt	\$ 295,437	\$ 245,984
Unrestricted	<u>629,482</u>	<u>616,428</u>
Total net assets	<u>\$ 924,919</u>	<u>\$ 862,412</u>

Total assets increased by \$4,409,889. This increase is primarily due to an increase in cash of approximately \$3,448,000 over the previous fiscal year related to the cost share received for the new Early Carbon Dioxide Storage (ECO2S) project.

Total liabilities increased by \$4,347,382. This increase is primarily due to an increase in deferred revenue of approximately \$3,043,000 which is directly related to, and in line with, the increase in cash.

Net assets increased by \$62,507 and are analyzed below in the condensed statements of activities and changes in net assets.

Condensed Statements of Activities and Changes in Net Assets

	2017	2016
Support and revenue:		
Support from member states	\$ 620,455	\$ 623,706
Grants, cooperative agreements, and other projects	6,535,333	3,486,425
State subgrants on behalf of member states and universities	2,787,549	3,045,404
Associate membership dues	151,093	132,000
Southeast Regional Carbon Sequestration membership dues	19,577	5,500
Special projects and sponsorships	<u>186,027</u>	<u>237,041</u>
Total support and revenue	<u>10,300,034</u>	<u>7,530,076</u>
Expenses:		
Grants, cooperative agreements, and other projects	5,283,156	2,287,492
Subgrants to member states and universities	2,787,549	3,045,404
State services and other programs	542,093	453,824
Operating expenses and indirect costs	<u>1,624,729</u>	<u>1,570,177</u>
Total expenses	<u>10,237,527</u>	<u>7,356,897</u>
Increase in net assets	<u>\$ 62,507</u>	<u>\$ 173,179</u>

During fiscal 2017, the expenditures of federal awards on direct and pass-through programs were \$8,957,089 as detailed in the supplemental schedule of expenditures of federal awards.

Overall, support and revenue and expenses related to grants, cooperative agreements and other projects increased from the prior year as a result of the new ECO2S project and the extension of the Southeast Regional Carbon Sequestration Phase III project.

Financial Condition

The Board's financial condition increased from fiscal 2016, resulting in an excess of support and revenue over expenses. Management believes the current financial condition is attributable to the Board billing federal projects for more labor and overhead during fiscal 2017 than in prior year.

Capital Assets and Debt Administration

At the end of fiscal 2017, the Board had \$295,437 invested in capital assets, as detailed in Note 4 to the financial statements. The Board purchased property and equipment totaling \$72,872 during fiscal 2017.

The Board also has a line of credit in the amount of \$100,000 available through a financial institution as detailed in Note 6 to the financial statements. There were no borrowings under the line of credit agreement during fiscal 2017.

Budgetary Highlights

Actual revenues for fiscal 2017 were \$109,387 more than the Board's budgeted revenues as reported in the Board's fiscal 2017 budget. The increase is mainly attributable to the income associated with direct and indirect labor costs of federal cooperative agreements increasing by approximately \$147,000 more than budgeted. The increase was a direct result of the increase in direct labor and overhead due to additional federal grants and special projects during fiscal 2017.

Actual expenses for fiscal 2017 were \$46,875 more than the Board's budgeted expenses as reported in the Board's fiscal 2017 budget. The \$46,875 overall increase in expenses was partly due to the increase of approximately \$23,000 more than budgeted in direct labor, which was a direct correlation associated with federal grants and special projects, and was partly due to the increase of approximately \$25,000 more than budgeted in direct labor associated with state services. The overall administrative and operation expense, which includes that annual meeting and building maintenance, equipment, and furniture, only decreased by approximately \$1,200 less than budgeted.

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Statements of Financial Position
June 30, 2017 and 2016

	2017	2016
Assets		
Current assets:		
Cash and cash equivalents	\$ 4,211,616	\$ 764,103
Accounts receivable, less allowance for doubtful accounts of \$30,000 in 2017 and 2016	2,148,567	1,235,644
Prepaid expenses	<u>3,466</u>	<u>3,466</u>
Total current assets	6,363,649	2,003,213
Property and equipment, net	<u>295,437</u>	<u>245,984</u>
Total assets	<u>\$ 6,659,086</u>	<u>\$ 2,249,197</u>
Liabilities and Net Assets		
Current liabilities:		
Accounts payable	\$ 2,173,863	\$ 850,568
Accrued expenses	160,334	171,129
Accrued pension contribution	122,490	130,346
Deferred revenue	<u>3,277,480</u>	<u>234,742</u>
Total current liabilities	5,734,167	1,386,785
Net assets	<u>924,919</u>	<u>862,412</u>
Total liabilities and net assets	<u>\$ 6,659,086</u>	<u>\$ 2,249,197</u>

See accompanying notes to financial statements.

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Statements of Activities and Changes in Net Assets
For the Years Ended June 30, 2017 and 2016

	2017	2016
Support and revenue:		
Support from member states	\$ 620,455	\$ 623,706
Grants, cooperative agreements, and other projects	6,535,333	3,486,425
State subgrants on behalf of member states and universities	2,787,549	3,045,404
Associate membership dues	151,093	132,000
Southeast Regional Carbon Sequestration membership dues	19,577	5,500
Special projects and sponsorships	<u>186,027</u>	<u>237,041</u>
Total support and revenue	<u>10,300,034</u>	<u>7,530,076</u>
Expenses:		
Grants, cooperative agreements, and other projects	5,283,156	2,287,492
Subgrants to member states and universities	2,787,549	3,045,404
State services and other programs	542,093	453,824
Operating expenses and indirect costs	<u>1,624,729</u>	<u>1,570,177</u>
Total expenses	<u>10,237,527</u>	<u>7,356,897</u>
Excess of support and revenue over expenses	62,507	173,179
Net assets at beginning of year	<u>862,412</u>	<u>689,233</u>
Net assets at end of year	<u>\$ 924,919</u>	<u>\$ 862,412</u>

See accompanying notes to financial statements.

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Statements of Cash Flows
For the Years Ended June 30, 2017 and 2016

	2017	2016
Cash flows from operating activities:		
Excess of support and revenue over expenses	\$ 62,507	\$ 173,179
Adjustments to reconcile excess of support and revenue over expenses to net cash provided by operating activities:		
Depreciation	23,419	20,579
Changes in assets and liabilities:		
Accounts receivable	(912,923)	234,749
Accounts payable	1,323,295	(433,139)
Accrued expenses	(10,795)	34,670
Accrued pension contribution	(7,856)	4,943
Deferred revenue	<u>3,042,738</u>	<u>36,020</u>
Net cash provided by operating activities	<u>3,520,385</u>	<u>71,001</u>
Cash flows from investing activities:		
Purchase of property and equipment	<u>(72,872)</u>	<u>(7,532)</u>
Net cash used in investing activities	<u>(72,872)</u>	<u>(7,532)</u>
Net increase in cash and cash equivalents	3,447,513	63,469
Cash and cash equivalents at beginning of year	<u>764,103</u>	<u>700,634</u>
Cash and cash equivalents at end of year	<u>\$ 4,211,616</u>	<u>\$ 764,103</u>

See accompanying notes to financial statements.

Southern States Energy Board

(A Not-for-Profit Governmental Organization)

Notes to Financial Statements

June 30, 2017 and 2016

Note 1: Description of Organization and Summary of Significant Accounting Policies

Description of Organization

Southern States Energy Board (the Board) is a not-for-profit governmental organization serving as the regional representative of sixteen southern states and the U.S. territories of Puerto Rico and the Virgin Islands in energy and environmental matters. The Board provides research, technical staff support, policy and program development, and implementation and information services encompassing all areas of energy and environmental quality.

Each member state is represented on the Board by its governor and a legislator from both the state House and Senate. Puerto Rico is represented by its governor and a legislator from its House and Senate. The Virgin Islands is represented by its governor and a legislator from its House. A Federal representative is appointed by the President of the United States of America.

The Board's support is apportioned among its members according to a formula specified in the compact legislation. The formula is based on each state or commonwealth's population, per capita income and an equal contribution share. Additional support for special projects is obtained from grants and cooperative agreements from the government and the private sector. Dues from an associate member program of corporate and other affiliations of the Board and SSEB Carbon Management Partnership/SECARB Industry Associates also provide support for the Board's projects. Additionally, the Board receives sponsorships to offset the costs of the annual meeting.

Grants and cooperative agreements from governmental agencies are generally based on total cost; other contracts are generally fixed fee contracts, on which the Board must absorb all costs incurred in excess of the contract amount. Grants and cooperative agreements from governmental agencies are subject to final government approval of total job cost, including allocated overhead.

Use of Estimates in Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Basis of Accounting

The Board uses the accrual method of accounting. Under this method, revenue is recognized in the period in which it is earned and expenses are recognized in the period in which they are incurred.

The Board is a governmental organization as defined by the Financial Accounting Standards Board (FASB) and the Governmental Accounting Standards Board (GASB); the Board is considered to be an instrumentality of the states and territories whereby the appointment (or approval) of a controlling majority of members of the governing board is made by officials of one or more state or local governments. As a governmental organization, the Board follows the accounting for not-for-profit entities as permitted by GASB.

Cash and Cash Equivalents

Cash and cash equivalents include cash and highly liquid investments that are readily convertible into cash and have a maturity of ninety days or less when purchased. At times, cash and cash equivalent balances may exceed federally insured amounts (Note 2). The Board believes it mitigates any risks by depositing cash and investing in cash equivalents with major financial institutions.

Property and Equipment

Purchases of property and equipment are recorded at cost net of accumulated depreciation. Property and equipment are depreciated using the straight-line method. The estimated useful lives of the assets are as follows: building and improvements, thirty one and one-half years; computer and office equipment, five years; and furniture and fixtures, seven to ten years.

Impairment of Long-Lived Assets

Long-lived assets, such as property and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When indicators of impairment are present, the Board evaluates the carrying amount of such assets in relation to the operating performance and future estimated undiscounted net cash flows expected to be generated by the assets or underlying operations. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. The assessment of the recoverability of assets will be impacted if estimated future operating cash flows are not achieved. In the opinion of management, no property and equipment was impaired as of June 30, 2017 or 2016.

Recognition of Revenue and Expenses

Member states' support dues are generally invoiced at the end of each fiscal year and are recognized as revenue in that fiscal year. During 2017, the Board did not write off any state appropriations receivables. During 2016, the Board wrote off \$28,848 of state appropriations receivables. Related to these write offs, the Board recognized revenue for these receivables and a corresponding bad debt expense which is included in operating expenses and indirect costs in the accompanying financial statements.

Associate membership dues are recognized over the period to which the dues relate.

The Board receives pass-through subrecipient funding for various states under grants and cooperative agreements provided by the Federal government. Revenue and the related expense amounts are recognized upon the filing of reimbursement requests by the respective states and U.S. territories upon completion of the review process by the Board's personnel. Amounts due from the Federal government at June 30, 2017 and 2016 are described in Note 3. Amounts due to the states and U.S. territories associated with recognized revenues and expenses are reflected in accounts payable; such amounts totaled \$634,963 at June 30, 2017 and \$463,454 at June 30, 2016.

Revenue from non pass-through grants and cooperative agreements is recognized as the services are performed.

Special projects and sponsorship revenue is recognized in the year the expense is incurred.

All identifiable expenses relating to the performance of a contract are charged directly to the specific contracts. All other costs and expenses incurred are allocated to each contract based on a provisional overhead rate per direct labor dollar. Such overhead costs are included in expenses by program category in the accompanying statements of activities and changes in net assets.

Functional Expenses

The costs of providing the various programs and other activities have been summarized on a functional basis in the accompanying statements of activities and changes in net assets. Operating expenses and indirect costs are allocated among the programs and supporting services benefited based on guidelines promulgated by the United States Department of Energy (DOE) and other government agencies and pass-through entities providing support to the Board.

Income Taxes

The Board is exempt from Federal income taxes as well as from other Federal taxes as a governmental organization, which is comprised of a group of States. The Board is a wholly-owned instrumentality of those States; therefore, no provision has been made in the financial statements for Federal income taxes.

In the opinion of management, the Board has no significant unrelated business income during 2017 or 2016 that would be subject to taxation.

The Board applies the provisions for income taxes. These provisions require that a tax position be recognized or derecognized based on a 'more-likely-than-not' threshold. This applies to positions taken or expected to be taken in a tax return. The Board does not believe its financial statements include any material uncertain tax positions.

New Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update (ASU) 2014-09, Revenue with Contracts from Customers. ASU 2014-09 supersedes the current revenue recognition guidance, including industry specific guidance. The guidance introduces a five-step model to achieve its core principal of the entity recognizing revenue to depict the transfer of goods or services to customers at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The updated guidance is effective for annual periods beginning after December 15, 2018, and early adoption is permitted only for annual periods beginning after December 15, 2016. The Board is currently evaluating the impact of this standard on its financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. ASU 2016-02 requires that lease arrangements longer than 12 months result in an entity recognizing an asset and a liability. The updated guidance is effective for annual periods beginning after December 15, 2019, and early adoption is permitted. The Board is currently evaluating the impact of this standard on its financial statements.

In August 2016, FASB issued ASU 2016-14, Not-for-Profit Entities (Topic 958): Presentation of Financial Statements of Not-for-Profit Entities. ASU 2016-14 changes presentation and disclosure requirements for not-for-profit entities to provide more relevant information about resources to donors, grantors, creditors, and other users. This includes qualitative and quantitative requirements in the following areas: net asset classes, investment returns, expenses, liquidity and availability of resources and presentation of operating cash flows. The new guidance is effective for fiscal years beginning after December 15, 2017, and early adoption is permitted. The Board is currently evaluating the impact of this standard on its financial statements.

Subsequent Events

The Board has evaluated for subsequent events between the balance sheet date of June 30, 2017 and the report date, the date the financial statements were available for issuance. The Board has concluded there were no recognized subsequent events or unrecognized subsequent events requiring disclosure.

Note 2: Cash Deposits

Bank balances of the Board's cash deposits are categorized to give an indication of the level of risk assumed by the Board:

- Category 1 - Insured or collateralized with securities held by the Board or by its agent in the Board's name.
- Category 2 - Collateralized with securities held by the pledging financial institution's trust department or agent in the Board's name.
- Category 3 - Uncollateralized.

As of June 30, the cash deposits were categorized as follows:

	2017	2016
Category 1	\$ 721,773	\$ 266,603
Category 2	-	-
Category 3	<u>3,749,219</u>	<u>767,318</u>
Total cash deposits	<u>\$ 4,470,992</u>	<u>\$ 1,033,921</u>

Cash and cash equivalents in the accompanying statements of financial position reflect the reconciled bank balances for all cash accounts as of June 30, 2017 and 2016.

Note 3: Accounts Receivable

Accounts receivable at June 30 are summarized as follows:

	2017	2016
Federal grants and contracts	\$ 2,155,772	\$ 1,260,644
Other receivables	<u>22,795</u>	<u>5,000</u>
	2,178,567	1,265,644
Less allowance for doubtful accounts	<u>30,000</u>	<u>30,000</u>
	<u>\$ 2,148,567</u>	<u>\$ 1,235,644</u>

Note 4: Property and Equipment

Property and equipment at June 30 are summarized as follows:

	2017	2016
Land	\$ 61,500	\$ 61,500
Building and improvements	377,030	377,030
Computer equipment	64,853	59,176
Furniture and fixtures	346,561	279,366
Office equipment	<u>19,862</u>	<u>19,862</u>
	869,806	796,934
Less accumulated depreciation	<u>574,369</u>	<u>550,950</u>
	<u>\$ 295,437</u>	<u>\$ 245,984</u>

Depreciation expense totaled \$23,419 in fiscal 2017 and \$20,579 in fiscal 2016.

Note 5: Board Designated Net Assets

At June 30, 2016, the Board approved \$125,000 of net assets to be designated for building repairs and maintenance expenditures that were incurred during the year ended June 30, 2017.

Note 6: Line of Credit

The Board has a \$100,000 on demand operating line of credit agreement with a financial institution. Borrowings under the line of credit are secured by substantially all assets of the Board and carry interest at the financial institution's prime rate plus 0.25% per annum (4.50% at June 30, 2017). There were no outstanding borrowings under the agreement at June 30, 2017 and 2016. The agreement expires on April 15, 2020, at which time the Board may renew the line of credit agreement.

The Board is required to adhere to certain financial and nonfinancial covenants under the line of credit agreement. As of June 30, 2017, the Board was in compliance with those covenants.

Note 7: Pension Plan

The Board provides a defined contribution pension plan which covers eligible employees and is administered by the Board's management. The plan provides for an annual contribution by the Board equal to 10% of each participant's annual compensation. The total required contribution to the plan was \$122,490 in fiscal 2017 and \$130,346 in fiscal 2016; such amounts are reflected as accrued pension contribution in the accompanying statements of financial position.

Note 8: Commitments and Contingencies

The Board leases certain equipment under noncancelable agreements accounted for as operating leases. The following is a schedule by year of future minimum rental payments under operating leases as of June 30, 2017:

2018	\$	34,969
2019		34,820
2020		27,716
2021		723
2022		723
Thereafter		<u>361</u>
	\$	<u>99,312</u>

Rental expense, including related equipment costs, under all operating leases totaled \$36,537 in fiscal 2017 and \$31,873 in fiscal 2016.

Grants Payable

The Board has entered into conditional subrecipient contracts with member states and other contractors to achieve certain contract and federal awards program objectives. At June 30, 2017, these subrecipient commitments totaled \$13,401,829 of which \$2,560,941 was committed to member states. At June 30, 2016, these subrecipient commitments totaled approximately \$7,273,281, of which \$3,690,939 was committed to member states.

Such contracts are ultimately subject to the availability of funding from certain federal agencies (Note 1), and the periods covered by some of these contracts extend beyond the Board's current fiscal year end. Accordingly, these commitments have not been reflected in the accompanying financial statements given their conditional status.

Government Grants

From time to time, the Board's contracts from governmental agencies can be audited by the DOE or other awarding agencies. Such audits could result in claims against the resources of the Board. No provision has been made for any liabilities which may arise from such audits since the amounts, if any, cannot be determined as of June 30, 2017 and 2016.

Litigation

The Board from time to time may be a defendant in legal actions generally incidental to its business. Although it is difficult to predict the outcome of any potential or threatened litigation, management believes that any ultimate liability will not materially affect the financial position and results of operations of the Board.

Note 9: Concentrations

During fiscal 2017 and 2016, approximately 80% and 84%, respectively, of revenue was derived from grants or contracts with the DOE and approximately 99% and 96% of receivables were due from the DOE as of June 30, 2017 and 2016, respectively.

Supplemental Information

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Schedule of Expenses, Adjustments and Claimed Costs
For the Year Ended June 30, 2017

Accounts	Expenses per General Ledger	Adjustments	Claimed Cost
Salaries and wages	\$ 740,971	\$ -	\$ 740,971
Group insurance	210,813	-	210,813
Pension plan	122,490	-	122,490
Financial/legal costs	89,868	-	89,868
FICA	84,815	-	84,815
Miscellaneous	65,394	-	65,394
Technical/project staff costs	59,756	-	59,756
Annual meeting	45,757	-	45,757
Printing equipment and supplies	35,427	-	35,427
Maintenance and repairs	26,502	-	26,502
Depreciation	23,418	-	23,418
Insurance	20,592	-	20,592
Telephone	19,697	-	19,697
Special meetings	19,621	-	19,621
Publications and subscriptions	18,217	-	18,217
Utilities	10,873	-	10,873
Computer services	8,238	-	8,238
Office supplies	7,281	-	7,281
Computer software	2,666	-	2,666
Education costs	2,517	-	2,517
Postage and delivery	2,459	-	2,459
Conference costs	2,158	-	2,158
Insurance deductible reimbursement	1,750	-	1,750
Equipment rental	1,110	-	1,110
Travel	827	-	827
Penalties expense (1)	756	(756)	-
Printing services	328	-	328
Property tax	278	-	278
Interest expense (1)	150	(150)	-
	<u>\$ 1,624,729</u>	<u>\$ (906)</u>	<u>\$ 1,623,823</u>
Overhead base, direct labor			687,803
Overhead pool			<u>\$ 1,623,823</u>
Overhead rate			<u>2.36</u>

Notes:

(1) Expense unallowable as per the Uniform Guidance

See independent auditor's report and accompanying notes to financial statements.

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2017

Federal Grantor/Pass-through Grantor	Federal CFDA Number	Federal Expenditures
U.S. Department of Energy:		
Direct Programs:		
Program - Fossil Energy Research and Development		
<i>Southeastern Carbon Sequestration Regional Partnerships, (SECARB)</i>		
<i>Phase II and III; Award No. DE-FC26-05NT42590</i>	81.089	\$ 3,192,923
<i>Establishing an Early Carbon Dioxide Storage (ECO2S) Complex in Kemper County, Mississippi; Award No. DE-FE0029465</i>	81.089	2,574,606
<i>Southeast Offshore Storage Resource Assessment Award No. DE-FE0026086</i>	81.089	1,159,653
<i>Clean Coal and Power Systems Technology Transfer Award No. DE-FE0004212</i>	81.089	207,981
<i>Small Scale Field Tests of Geologic Reservoir Classes for Geologic Storage; Award No. DE-FE0006827</i>	81.089	2,551
<i>University of Texas Award No. DE-FE0026083</i>	81.089	<u>3,139</u>
Total Fossil Energy Research and Development	81.089	7,140,853
Program - Transport of Transuranic Waste to the Waste Isolation Pilot Plant: States and Tribal Concerns, Proposed Solutions		
<i>Waste Shipments Along the WIPP Corridor for Southern/Midwestern States and Foreign Fuel Shipments; Award No. DE-FC29-93AL82966</i>	81.106	1,569,242
Program - Nuclear Energy, Research, Development and Demonstration		
<i>Oversight of Radioactive Waste Transportation in the Southern States; Award No. DE-NE-0000550</i>	81.121	201,146
Program - Nuclear Waste Disposal Siting		
<i>Radioactive Materials Transportation Committee and National Transportation Forum; Award No. DE-EM002284</i>	81.065	<u>45,848</u>
Total direct programs		<u>8,957,089</u>
Total Expenditures of Federal Awards		<u>\$ 8,957,089</u>

See independent auditor's report and accompanying notes to financial statements.

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

**Notes to Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2017**

Note A: Basis of Presentation

The accompanying schedule of expenditures of federal awards includes the federal grant activity of Southern States Energy Board (the Board) and is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of *Title 2 U.S. Code of Federal Regulations (CFR) Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Some amounts presented in this schedule may differ from amounts presented in, or used in the preparation of, the basic financial statements.

Note B: Subrecipients

The Board provided federal awards to member state subrecipients as follows:

Program Title	Federal CFDA Number Provided	Amount
Fossil Energy Research and Development	81.089	\$ 1,305,221
Transport of Transuranic Waste to the Waste Isolation Pilot Plant	81.106	\$ 1,347,607

Note C: Cost Sharing

During fiscal 2017, the Board incurred cost sharing expenses related to the Department of Energy contracts totaling \$20,683.

See independent auditor's report and accompanying notes to financial statements.



Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Members of
Southern States Energy Board

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Southern States Energy Board (the Board) (a not-for-profit governmental organization), which comprise the statement of financial position as of June 30, 2017, and the related statements of activities and changes in net assets, and cash flows for the year then ended, and related notes to the financial statements, which collectively comprise the Board's basic financial statements, and have issued our report thereon dated October 20, 2017.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Board's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. Accordingly, we do not express an opinion on the effectiveness of the Board's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Board's statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Board's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Board's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Bennett Thasher LLP

October 20, 2017



Independent Auditor's Report on Compliance for Each Major Federal Program and on Internal Control Over Compliance Required by the Uniform Guidance

To the Members of
Southern States Energy Board

Report on Compliance for Each Major Federal Program

We have audited Southern States Energy Board (the Board) (a not-for-profit governmental organization) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the Board's major federal programs for the year ended June 30, 2017. The Board's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the Board's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Board's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Board's compliance.

Opinion on Each Major Federal Program

In our opinion, the Board complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its major federal programs for the year ended June 30, 2017.

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Report on Internal Control Over Compliance

Management of the Board is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit, we considered the Board's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal programs and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Board's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Bennett Thasher LLP

October 20, 2017

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Schedule of Findings and Questioned Costs
For the Year Ended June 30, 2017

Section I – Summary of Auditor’s Results

Financial Statements

Type of auditor’s report issued: Unmodified

Internal control over financial reporting:

Material weaknesses identified? No.

Significant deficiencies identified? None reported.

Noncompliance material to financial statements noted? No.

Federal Awards

Internal control over major programs:

Material weaknesses identified? No.

Significant deficiencies identified? None reported.

Type of auditor’s report issued on compliance for major programs: Unmodified.

Any audit findings disclosed that are required to be reported in accordance with 2 CFR section 200.516(a)? No.

Major programs:

<u>CFDA Number</u>	<u>Name of Federal Program</u>
81.089	Fossil Energy Research and Development

Dollar threshold used to distinguish between type A and type B programs: \$750,000.

Auditee qualified as low-risk auditee? Yes.

Section II – Financial Statement Findings

No matters were reported.

Section III – Federal Award Findings and Questioned Costs

No matters were reported.

Southern States Energy Board
(A Not-for-Profit Governmental Organization)

Schedule of Prior Audit Findings
For the Year Ended June 30, 2017

Findings: None

Questioned costs: None

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Bennett Thrasher LLP
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Atlanta, Georgia 30339

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Fax: 770-390-0394

Southern States Energy Board
(A Not-For-Profit Governmental Organization)

Required Communications

June 30, 2017



Southern States Energy Board

Required Communications
June 30, 2017

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To the Members of
Southern States Energy Board

We have audited the financial statements of Southern States Energy Board (the Board) (a not-for-profit governmental organization) for the year ended June 30, 2017, and have issued our report thereon dated October 20, 2017. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, *Government Auditing Standards* and the Uniform Guidance, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated August 9, 2017. Professional standards also require that we communicate to you of the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Board are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during fiscal year 2017. We noted no transactions entered into by the Board during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements are as follows:

- *Management's estimate of the depreciation expense:* Management's estimate of the depreciation expense was based on the estimated useful lives of property and equipment and is as follows: building and improvements, thirty one and one-half years; computer equipment, five years; furniture and fixtures and office equipment, five to seven years.
- *Management's estimate of the allowance for doubtful accounts:* Management's estimate of the allowance for doubtful accounts was based on an analysis of the aging and history of the Board's accounts receivable balance.

We evaluated the key factors and assumptions used to develop the depreciation expense estimate and the allowance for doubtful accounts estimate in determining that it is reasonable in relation to the financial statements taken as a whole.

BETTER TOGETHER

A Limited Liability Partnership of Certified Public Accountants & Consultants

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www.btcpa.net

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit. We appreciate the high level of support and responsiveness management provided as we completed our engagement.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management.

There were no audit adjustments proposed by us that were not recorded by the Board.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting or auditing matter, whether or not resolved to our satisfaction that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the attached management representation letter dated October 20, 2017. See Appendix A for the management representation letter.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Board's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants and we were not contacted by other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to our retention as the Board's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Supplemental Information

With respect to the supplementary information accompanying the financial statements, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with U.S generally accepted accounting principles, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statement themselves.

The information is intended solely for the use of the Members of Southern States Energy Board, management and others within the Board and is not intended to be, and should not be, used by anyone other than these specified parties.

Bennett Thasher LLP

October 20, 2017



October 20, 2017

Bennett Thrasher LLP
One Overton Park
3300 Riverwood Parkway
Suite 700
Atlanta, Georgia 30339

This representation letter is provided in connection with your audits of the financial statements of Southern States Energy Board (the Board), which comprise the statements of financial position as of June 30, 2017 and 2016, and the related statements of activities and changes in net assets and cash flows for the years then ended, and the related notes to the financial statements, for the purpose of expressing an opinion on whether the financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm that to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves as of the date of this letter, the following representations made to you during the audit:

Financial Statements

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement dated August 9, 2017, for the preparation and fair presentation of the financial statements in accordance with U.S. GAAP.
2. The financial statements referred to above are fairly presented in conformity with U.S. GAAP.
3. We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
4. We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
5. We have identified all accounting estimates that could be material to the financial statements, including the key factors and significant assumptions underlying those estimates, and we believe the estimates are reasonable in the circumstances.

6. There are no such estimates that may be subject to material change in the near term that have not been properly disclosed in the financial statements. We understand that near term means the period within one year of the date of the financial statements.
7. The Board has no plans or intentions that may materially affect the carrying value or classification of assets, liabilities or net asset balances.
8. Related party transactions, including revenues, expenses, loans, transfers, leasing arrangements and guarantees, and amount receivable from or payable to related parties have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP.
9. All events subsequent to the date of the financial statements and for which U.S. GAAP requires adjustment or disclosure have been adjusted or disclosed.
10. Material concentrations have been properly disclosed in accordance with U.S. GAAP.
11. Guarantees, whether written or oral, under which the Board is contingently liable, have been properly recorded or disclosed in accordance with U.S. GAAP.

Information Provided

12. There have been no communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices.
13. There are no material transactions that have not been properly recorded in the accounting records underlying the aforementioned financial statements or the schedule of expenditures of federal awards.
14. We have made available to you all:
 - a. Financial records and related data.
 - b. Minutes of the meetings of directors, trustees and committees of directors or trustees, or summaries of actions of recent meetings for which minutes have not yet been prepared (all significant board and committee actions are included in such summaries). The following represents a complete list of all such minutes:
 - 1) September 26, 2016 Annual Meeting Minutes
15. We have no knowledge of any fraud or suspected fraud affecting the Board involving:
 - a. Management;
 - b. Employees who have significant roles in internal control; or
 - c. Others where the fraud could have a material effect on the financial statements.
16. We have no knowledge of any allegations of fraud or suspected fraud affecting the Board received in communications from employees, former employees, regulators or others.

Other

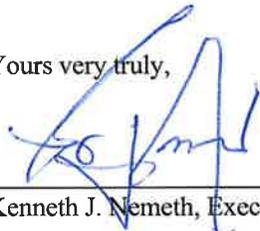
17. We are responsible for compliance with the laws, regulations and provisions of contracts and grant agreements applicable to us; and we have identified and disclosed to you all laws, regulations and provisions of contracts and grant agreements that we believe have a direct and material effect on the determination of the financial statement amounts.
18. The Board is exempt from Federal income taxes as well as from other Federal taxes as a governmental organization, which is comprised of a group of States. The Board is a wholly-owned instrumentality of those States; therefore, no provision has been made in the financial statements for Federal income taxes. Further, in our opinion, we believe the Board has no significant unrelated business income during 2017 or 2016 that would be subject to taxation. All required filings with tax authorities are up-to-date.
19. There are no:
 - a. Violations or possible violations of laws and regulations and provisions of contracts and grant agreements whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency.
 - b. Unasserted claims or assessments that our lawyer has advised us are probable of assertion and must be disclosed in accordance with Accounting Standards Codification (ASC) 450, *Accounting for Contingencies*.
 - c. Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by ASC 450.
 - d. Designations of net assets disclosed to you that were not properly authorized and approved, or reclassifications of net assets that have not been properly reflected in the financial statements.
20. The Board has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged.
21. As part of your audit, you assisted with preparation of the financial statements and related notes and schedule of expenditures of federal awards. We have designated an individual with suitable skill, knowledge, or experience to oversee your services and have made all management decisions and performed all management functions. We have reviewed, approved, and accepted responsibility for those financial statements and related notes and schedule of expenditures of federal awards.
22. We have complied with all restrictions on resources (including donor restrictions) and all aspects of contractual and grant agreements that would have a material effect on the financial statements in the event of noncompliance.
23. Provisions for uncollectible receivables have been properly identified and recorded.
24. With respect to federal award programs:
 - a. We are responsible for complying and have complied with the requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).

- b. We have, in accordance with the Uniform Guidance, identified in the schedule of expenditures of federal awards, expenditures made during the audit period for all awards provided by federal agencies in the form of grants, federal cost reimbursement contracts, loans, loan guarantees, property (including donated surplus property), cooperative agreements, interest subsidiaries, insurance, food commodities, direct appropriations, and other assistance.
- c. We are responsible for complying with, and have complied with in all material respects, the requirements of laws, regulations, and the provisions of contracts and grant agreements related to each of our federal programs and have identified and disclosed to you the requirements of laws, regulations, and the provisions of contracts and grant agreements that are considered to have a direct and material effect on each major federal program.
- d. We are responsible for establishing and maintaining, and have established and maintained, effective internal control over compliance requirements applicable to federal programs that provide reasonable assurance that we are managing our federal awards in compliance with laws, regulations and the provisions of contract and grant agreements that could have a material effect on federal programs. We believe the internal control system is adequate and is functioning as intended. Also, no changes have been made in the internal control system to the date of this letter that might significantly alter internal control.
- e. We have made available to you all contracts and grant agreements (including amendments, if any) and any other correspondence with federal agencies or pass-through entities relating to each major federal program.
- f. We have received no requests from a federal agency to audit one or more specific program as a major program.
- g. We have complied, in all material respects, with the compliance requirements, including when applicable, those set forth in the *OMB Compliance Supplement*, relating to federal awards.
- h. There are no questioned amounts or any known noncompliance with the requirements of federal awards, including the results of other audits or program reviews, other than what is disclosed in the financial statement and compliance report.
- i. Amounts claimed or used for matching were determined in accordance with relevant guidelines in the Uniform Guidance.
- j. We have disclosed to you our interpretation of compliance requirements that may have varying interpretations.
- k. We have made available to you all documentation related to the compliance requirements, including information related to federal program financial reports and claims for advances and reimbursements.

- l. We have disclosed to you the nature of any subsequent events that provide additional evidence about conditions that existed at the end of the reporting period affecting noncompliance during the reporting period.
 - m. There are no such known instances of noncompliance with direct and material compliance requirements that occurred subsequent to the period covered by the auditor's report.
 - n. No changes have been made in internal control over compliance or other factors that might significantly affect internal control, including any corrective action we have taken regarding significant deficiencies or material weaknesses in internal control over compliance, subsequent to the period covered by the auditor's report.
 - o. Federal program financial reports and claims for advances and reimbursements are supported on the books and records from which the basic financial statements have been prepared and are prepared on a basis consistent with the schedule of expenditures of federal awards.
 - p. The copies of federal program financial reports provided you are true copies of the reports submitted, or electronically transmitted, to the respective federal agency of pass-through entity, as applicable.
 - q. We have monitored subrecipients to determine that they have expended pass-through assistance in accordance with applicable laws and regulation and have met the requirements of the Uniform Guidance.
 - r. We have charged costs to federal awards in accordance with applicable cost principles.
 - s. We have taken appropriate action on a timely basis after receipt of subrecipients' auditor reports that identified noncompliance with laws, regulations, or the provisions of contracts or grant agreement to ensure that subrecipients have taken the appropriate and timely corrective action on the findings.
 - t. We have considered the results of subrecipient audits in making any necessary adjustments to our books and records.
 - u. We are responsible for and have ensured the reporting package does not contain protected personally identifiable information.
 - v. We are responsible for and will accurately prepare the auditee section of the Data Collection Form as required by the Uniform Guidance and we are responsible for preparing and implementing a corrective action plan for each audit finding, when applicable.
 - w. We have disclosed to you all contracts or other agreements with service organizations, and we have disclosed to you all communications from service organizations relating to noncompliance at service organizations.
25. We are not aware of any pending or threatened litigation, claims, or assessments, or unasserted claims or assessments, that are required to be accrued or disclosed in the financial statements in accordance with U.S. GAAP, and we have not consulted a lawyer concerning litigation, claims, or assessments.

26. The Board's \$100,000 line of credit expires in April 2020, at which time the agreement will be reviewed for extension. As of June 30, 2017, there were no outstanding borrowings on the line of credit.
27. The Board has subrecipient contracts with member states and other contractors to achieve the contract and federal award program objectives. At June 30, 2017, these subrecipient commitments totaled \$13,401,829 of which \$2,560,941 was committed to member states. At June 30, 2016, these subrecipient commitments totaled \$7,273,281 of which \$3,690,939 was committed to member states.
28. We believe that all material expenditures that have been deferred to future periods will be recoverable.
29. No events, including instances of noncompliance, have occurred subsequent to the statement of financial position date and through the date of this letter that would require adjustment to or disclosure in the aforementioned financial statements or in the schedule of findings and questioned costs.
30. The Board's contribution to the defined contribution pension plan was \$122,490 for the year ending June 30, 2017 and \$130,346 for the year ending June 30, 2016.

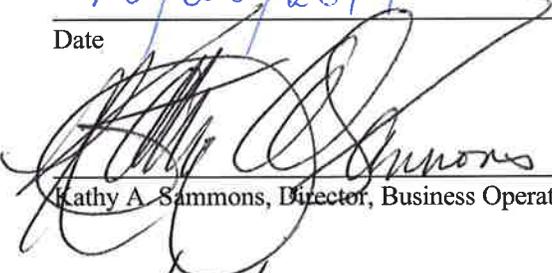
Yours very truly,



Kenneth J. Nemeth, Executive Director

10/20/2017

Date



Kathy A. Sammons, Director, Business Operations

10/20/2017

Date



Transcending Boundaries

Exploring the New Vision for America's Energy Economy

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Cover: Petra Nova near Houston, Texas

Message From the Chairman

The advent of a new Administration at the national level always brings fresh challenges and opportunities for the states. Policy-making, personnel, planning, and budgeting become major tasks and, perhaps, adjustments to a new way of conducting the business of governing.

In concert with the anticipation over the election of a new President and the promises of “Cooperative Federalism” with expanded roles for the states, I am pleased to report that the Southern States Energy Board is experiencing an outstanding year!

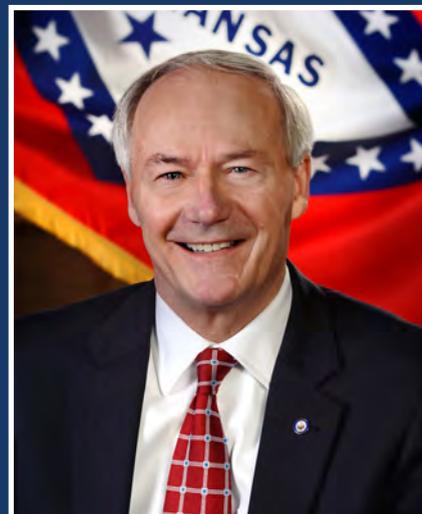
“Exploring the New Vision for America’s Energy Economy,” SSEB’s theme for 2017-2018, is certainly in keeping with the events in the energy sector that are unfolding before us. The Southern States Energy Board is playing an exciting role in exploring that new vision.

I am honored this year to serve as the Chairman of the Southern States Energy Board and the Interstate Oil and Gas Compact Commission. When I accepted these roles, it quickly became apparent that the two organizations have much in common and also share a long history of working together to resolve complex issues facing the states and the energy industry. With this in mind, I was eager for both organizations to assist in leading a Governor’s Summit on Energy Security and Infrastructure, especially with a new Administration and its plans to recharge and invigorate the energy sector.

During the Governor’s Summit on February 23-24, we heard from governors, industry leaders, technical experts, and academia about our energy future. There was strong emphasis placed on cybersecurity, infrastructure needs, workforce development, and a variety of energy and environmental initiatives underway in our member states. After thoughtful consideration and discussion, a number of ideas were shared on what the southern states can do to promote our cause relative to these issues.

Following the Summit in February, I wrote a letter to the President citing an appendix of key points and recommendations related to: (1) infrastructure development, including the establishment of a multidisciplinary process within the federal government to serve as a one-stop shop on federal permitting issues; (2) cybersecurity issues, including coordination of government and industry and investments in research and development by the Departments of Defense and Energy and the National Science Foundation into cybersecurity solutions for the energy sector; (3) investment in educational campaigns to create

Asa Hutchinson
Governor of Arkansas





the workforce of the energy sector of the 2020s; and (4) a focus on innovation and technology solutions that support traditional fuels such as coal, natural gas, renewable resources, and nuclear power.

Future energy security and international competitiveness depend on the modernization of America's energy infrastructure including the cybersecurity innovations that can protect our networks of production, transmission, storage, and distribution systems. Threats to energy security in the United States emanate from the political instability of energy producing countries, the manipulation of energy supplies, competition among emerging economies, attacks on power plants and supply infrastructure, natural disasters, accidents, terrorism, and reliance on foreign countries for oil resources. Energy security strengthens the performance of all sectors within the American economy.

While the U.S. Department of Energy is working to proactively address cybersecurity issues with technology, readiness, and resiliency, industry needs to engage and participate to maximize federal investments. Protocols should be established for threat information exchange between the various levels of government and an overall awareness of cyber issues from the perspective of the electric grid, oil and gas industries, and communications infrastructure.

Permitting of infrastructure creates bottlenecks, and lines between federal and state permitting should be addressed. At the same time, workforce development issues are coming to the forefront as a large percentage of the current industry personnel is aging. Connecting education from Kindergarten through Doctoral programs is especially important in cyber issues. Finally, innovation is key to future energy production and use.

Today, we have a unique opportunity to impact the smart decisions that will shape the energy sector of our economy for decades to come. America is less dependent on foreign oil than it has been in more than 40 years. Unconventional oil and gas drilling have given us an international lead in the quest for energy independence but we must ensure that the regulatory role of the states is clear and strong. New nuclear power technologies must be pursued and we must make decisions on the safe and permanent disposal of spent nuclear fuel. Renewable energy resources will add to our energy security and create jobs. The future energy sector will depend on the development of a strong, skilled workforce. With the retirement of “baby boomers,” there will be new and expanded job opportunities in the energy field.

This year the Southern States Energy Board celebrates a very special milestone. Since 2003, the Board has served as Manager of the Southeast Regional Carbon Sequestration Partnership (SECARB). In 2011, the Partnership’s Phase III efforts resulted in the world’s first, fully integrated, carbon dioxide (CO₂) capture and storage, 25 megawatt equivalent (MWe) demonstration project utilizing anthropogenic, or man-made, CO₂ from a coal-fired power plant. The CO₂ was transported 12 miles, from Alabama Power’s Plant Barry near Mobile, Alabama, via a dedicated pipeline to an oilfield in Citronelle, Alabama. Approximately 114,000 metric tons of CO₂ were injected into the deep saline Paluxy Formation for permanent storage.

Investors from NRG Energy in Houston, Texas, visited the demonstration plant and liked what they saw. Scaling up SECARB’s demonstration plant to 240 MWe, NRG and its partners built Petra Nova, which won Power Magazine’s highest honor as the

U.S.’s first and world’s largest commercial post-combustion carbon capture system at a power plant. Petra Nova is recognized with distinction as a globally significant environmental breakthrough and a trailblazing revenue-generating facility. The CO₂ captured at the plant is shipped by pipeline 81 miles to Hilcorp’s West Ranch Oilfield and used for enhanced oil recovery. Prior to Petra Nova, the West Ranch oilfield was producing 300 barrels of oil per day and is expected to reach 15,000 barrels per day with a maximum of 60 million barrels of recoverable oil. Building this billion dollar project on time and under budget—despite a chaotic policy climate and other challenges—was a top priority for NRG’s investors and partners. The SECARB demonstration project was instrumental in plans to scale up and also shortened the time needed for development and construction.

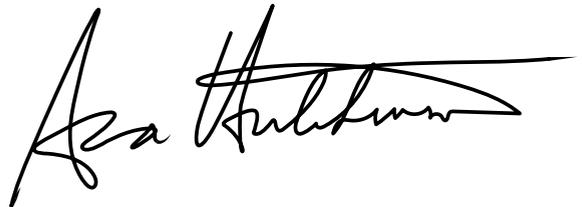
SSEB is leading the way in advancing storage technology for CO₂. SSEB and research partners across the Southeast are assessing the feasibility of a regional CO₂ storage complex adjacent to the Kemper County energy facility in Mississippi. Three wells have been drilled and cored for use in characterizing and calculating the CO₂ storage potential. Initial results indicate that the location is a world-class CO₂ storage repository for a commercial scale, 438 million metric ton capacity, storage site. At this rate, the complex will have the capacity to receive 3 million metric tons per year of CO₂, and potentially three times as much as determined by pre-feasibility models, for a period of at least 30 years. In addition, the Board is managing the Southeast Offshore CO₂ Storage Resource Assessment (SOSRA) to develop a high-level approximation of CO₂ storage capability in three

areas—the Mid-Atlantic; South Atlantic; and eastern Gulf of Mexico—utilizing key geologic and environmental factors that influence storage potential.

SSEB continues to maintain a vital partnership with the U.S. Department of Energy on environmental management as well as training and preparedness for radioactive materials transportation. Through the Board’s four committees, emergency response and radiological health professionals representing our member states help to implement policies and procedures to ensure shipments traversing the region are conducted in a safe and efficient manner. For instance, prior to the resumption of shipments of radioactive materials to the Waste Isolation Pilot Plant in April, SSEB committee members and staff visited each corridor state as a part of a forum to educate and inform first responders, community leaders, and the general public of the various elements of the shipping program. This effort reinstated institutional protocols which may have lapsed during the site’s two-year closure.

On the commercial front, SSEB maintains the Southern Mutual Radiation Assistance Plan as a mutual aid agreement identifying resources and the mechanism for states to request assistance from one another in the event of an incident at a nuclear power plant. SSEB plays a significant role in facilitating practice drills to ensure proper coordination occurs in the event of an actual incident. In addition, several members of the Board’s Radioactive Materials Transportation Committee are conducting extensive analysis of routing issues associated with transporting spent nuclear fuel from commercial reactors to proposed locations for a repository and interim storage facility. These are just a few of the efforts being undertaken in this important arena as SSEB works with our states and the federal government to establish a national strategy for the remediation and disposal of these highly sensitive materials.

A New Vision for America’s Energy Economy is essential if we are to safely manage the energy resources and technologies that can drive a path to a reliable, secure, and low-cost energy future. The Southern States Energy Board, through its unique roles in policy and technology development, is the catalyst that can bring together states and public/private partnerships to enhance the mutual cooperation needed in this new era of “Cooperative Federalism.” As Chairman, I commend this 2017 Annual Report to you as a record of the successes and accomplishments of an outstanding regional organization!

A handwritten signature in black ink, appearing to read "Asa Hutchinson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Asa Hutchinson
Governor of Arkansas
Chairman 2015-2017

Special Events



Governor's Summit on Energy Security and Infrastructure

February 23-24, 2017

In 2016 after assuming the Chairmanship of both the Southern States Energy Board (SSEB) and the Interstate Oil and Gas Compact Commission (IOGCC), Arkansas Governor Asa Hutchinson charged the organizations with collaborating and coordinating a Governor's Summit on Energy Security and Infrastructure. The Governor's Summit was held on February 23-24, 2017, in Washington, DC, to coincide with the National Governors Association's Winter Meeting. The event was successful in bringing together the leadership in the states and the energy industry to address the critical energy infrastructure planning and development that is essential to fuel America's economy.

Governors Matt Bevin of Kentucky, Gary Herbert of Utah, and Matt Mead of Wyoming, along with energy experts representing federal and state government, utilities, and universities joined Governor Hutchinson for a well-informed and lively discussion on the current condition of our Nation's energy security and infrastructure. Participants also contributed recommendations for improvements and enhancements that are necessary for energy infrastructure modernization; innovations in cybersecurity to protect our networks of production, transmission, storage, and distribution systems; and initiatives and programs encouraging workforce development to support the jobs of the future in the energy industry; and solutions to other key energy and environmental issues.

On April 11, 2017, Governor Hutchinson sent a letter to United States President Donald J. Trump summarizing the event and offering a blueprint to move the energy and infrastructure sectors forward in the new Administration. In the letter, he urges the President to review the key points and recommendations that emanated from the Governor's Summit.



Recommendations to the President of the United States:

Infrastructure items

We urge the President to help the Nation unlock more of its energy resource potential by revising the Federal permitting process. Through the creation of a multidisciplinary permitting process within the Federal government that becomes the single point of contact with industry on permitting issues, and reforming the process as indicated below, the industry can proceed with the construction of large projects in a more timely fashion and save consumers money by lowering the costs of infrastructure improvements.

- Permitting for major energy infrastructure and projects at the Federal level is too diffuse. The Federal government needs a single clearinghouse to respond to utility and industry requests, especially if multiple Federal agencies are involved. The culmination of this streamlined process should be a one-stop shop for expedited permitting at the Federal level.
- Permitting is the domain of the State and the Federal governments. Regulatory authority should be clarified in matters such as eminent domain.
- A general reduction in federal regulations is needed immediately including retraction and cancellation of the Clean Power Plan, the Waters of the U.S. rule, and many other mandates created over the past decade.
- Reducing the cost of court interventions during permitting and construction of major infrastructure facilities will save taxpayers money while still ensuring the rights of interveners.

Cybersecurity Issues

The United States electric grid is increasingly vulnerable to cybersecurity attacks. In a national emergency, government and industry must work together to plan for resiliency and recovery. We urge the President to immediately consider appointments to three vacancies on the Federal Energy Regulatory Commission to protect utilities, natural gas, and telecommunications. Further, we request that the United



Mike Smith, IOGCC; Gov. Gary Herbert, Utah; Gov. Asa Hutchinson, Arkansas; and Ken Nemeth, SSEB, following a panel discussion on energy infrastructure and modernization and cybersecurity for energy systems.

States Secretary of Energy continue to engage the Electricity Subsector Coordinating Council to ensure government/industry cooperative management of changes and risks, conduct joint exercises, and continue earnest investments in research and development by DOD, DOE, and the National Science Foundation into cybersecurity solutions for the energy sector. The U.S. Department of Energy is working to proactively address issues with technology, readiness, and resiliency following a major cyber-attack. The President should encourage industry engagement and participation, technologically and monetarily, to maximize the security of infrastructure investments.

Workforce Development Issues

The estimated number of required energy and cybersecurity professionals for the Nation's future workforce is staggering. Put into perspective, the needs easily outweigh America's capacity to educate and train in the next three years. The country needs to invest now in a huge educational campaign to begin to create the workforce of the 2020s.

- The number of cyber professionals required is estimated at over 1.5 million by 2020 (Burley).
- Energy executives and managers average 62 years of age and high-level administrators exceed 65 years.

Energy & the Environment Issues

Pragmatically speaking, the Nation needs a balance of fuel options for its energy needs. This includes oil, coal, gas, nuclear, wind, solar, hydro, and energy efficiency. We ask that the President consider these points:

- Climate vs. energy production is a non-starter question: focus on innovation (e.g., carbon capture and usage); find technology solutions that support coal, gas, and renewables.
- Re-open Yucca Mountain, so that the nation has a long-term solution for used nuclear fuel and waste materials.
- Support existing nuclear power plants and invest in small nuclear reactor development; eliminate ALARA (aka "as low as reasonably achievable") regulations on nuclear.
- Work toward an energy fuel balance (fossil, nuclear, renewables).
- Energy poverty is a demand that the United States can help meet (export coal and LNG).



Governor Hutchinson Announces the Formation of the Governors Energy Caucus

February 24, 2017

At the conclusion of the Governors Summit on Energy Security and Infrastructure on February 24, 2017, Governor Asa Hutchinson announced the formation of a Governors Energy Caucus. “I urge all governors to participate in this new coalition, especially those from energy producing states that have much to gain or lose as new energy policies, regulations, and technologies emerge from the new Administration,” said Hutchinson.

The purpose of the Governors Energy Caucus is to provide a forum for governors of American states and territories to:

- Confront, address and deliberate on energy issues;
- Share information between and among states and territories;
- Request appearance before this body by any person, including members of Congress, the Administration or the public-at-large, who can further the knowledge and interests of this body;
- Meet as necessary with the U.S. Secretary of Energy to discuss the impact of the Administration’s energy policies and the role of the states;
- Appear before Congressional committees, federal forums or industry meetings regarding the interests of the Caucus; and
- Hold an initial meeting to address Caucus leadership and agenda.

States play a critical role in developing and maintaining the Nation’s energy and environmental infrastructure. Energy and cybersecurity are vital to protect us from those who would do harm to energy and environmental facilities that are the lifeblood of America. We must educate and train workers to think innovatively; to operate new and more efficient technologies; and to expand an aging energy industry workforce that is critical to our future economic development and sustainability. To reach these goals, Governor Hutchinson encouraged participants to support our new President and use the power of the states to move new energy projects forward through efficient and effective energy regulatory measures that can help us to achieve true American energy independence.

The Southern States Energy Board and Interstate Oil and Gas Compact Commission were designated to coordinate the staffing arrangements necessary to serve the needs of the Governors Energy Caucus. The Second Governors Energy Caucus will convene during the SSEB’s 57th Annual Meeting in September 2017.

Celebrating Petra Nova

SSEB's SECARB Demonstration Plant Goes Commercial

In 2003, when SSEB began its management of the Southeast Regional Carbon Sequestration Partnership, no one could have predicted that the partners not only would claim a successful demonstration of carbon capture, transport, and storage of CO₂, but also a successful commercialization scale up of the technology. SECARB's 25 MWe demonstration at Alabama Power Company's Plant Barry in Bucks, Alabama, became a 240 MWe successful commercialization at NRG's Petra Nova – W.A. Parish Generating Station near Houston, Texas, with a celebration on April 13, 2017.

Today, Petra Nova is the world's largest post-combustion CO₂ capture facility attached to an existing coal-fired power plant. Using a proven carbon capture process developed jointly for the Plant Barry demonstration by Mitsubishi Heavy Industries and Kansai Electric Power Company, the technology employs a high-performance solvent for absorption and desorption of carbon dioxide that has the potential to enhance the long-term viability and sustainability of coal-fired power plants across the globe.

More than 90 percent of the captured CO₂ is sent by pipeline to Hilcorp Energy's West Ranch oil field 81 miles away to be used for enhanced oil recovery. Oil production is expected to increase from 300 barrels per day to over 15,000 barrels per day. The field is estimated to hold 60 million barrels of oil that can be recovered by using CO₂.



The Honorable Greg Abbott, Governor of Texas and SSEB member, speaks at the Petra Nova celebration on April 13, 2017.

Presenters at the April 13 ceremony included Mauricio Gutierrez, CEO of NRG Energy; Shunsaku Miyake, President and CEO of J.X. Nippon Oil and Gas Exploration; Texas Governor Greg Abbott; and U.S. Secretary of Energy Rick Perry. The Petra Nova project was selected by DOE to receive up to \$190 million under the Clean Coal Power Initiative, a public/private cost-shared collaboration.

Regarding SSEB's role in the project, NRG Vice President David Greeson responded that "we couldn't have done this without the SECARB demonstration that convinced our investors of the viability of the technology."



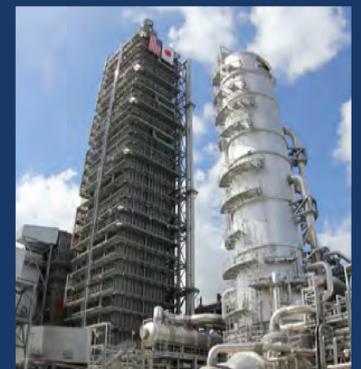
Secretary of Energy Rick Perry speaks at the Petra Nova celebration.



NRG Energy President and CEO Mauricio Gutierrez speaks at the celebration.



Gov. Abbott and Sec. Perry turn the valve to start the flow of CO₂ to Hilcorp's West Ranch Oilfield.



Alabama's First Energy Day

April 19, 2017

On April 19, 2017, the Southern States Energy Board joined the Energy Institute of Alabama to host the State's First Energy Day. Energy sector leaders and state policy-makers assembled for a wide-ranging discussion of the current and future state of the energy industry. The Board's Secretary and Executive Director, Ken Nemeth, moderated an expert panel discussion that covered a variety of topics ranging from expected federal regulation changes from the new Trump Administration to the importance of educating the work force to handle jobs in the changing energy industry. Panelists were Tennessee Valley Authority President and CEO Bill Johnson, State Geologist and Oil and Gas Supervisor of Alabama Nick Tew, PowerSouth President and CEO Gary Smith, Alabama Power Executive Vice President of External Affairs Zeke Smith, Coalbed Methane Association Executive Director Dennis Lathem, and ExxonMobil Mobile Bay Ops Manager Chris Golden.



Alabama Representative Randy Davis, Vice Chairman of the Southern States Energy Board, welcomed guests to the event, as did his colleagues Speaker of the House Mac McCutcheon, Senate President Pro Tempore Del Marsh, and Senate Majority Leader Greg Reed. Fellow members of the Alabama Legislature were present, as well as a contingent from the United Mine Workers of America.

The Energy Institute of Alabama is chaired by former Speaker of the House Seth Hammett, and the Institute's mission is to promote reliable, affordable and clean energy to help grow our economy, create high-paying jobs, and build public support for Alabama's energy industry. Learn more at www.energyinstituteal.org.



Annual Energy Briefing to Southern Legislators

July 29, 2017

State legislators face challenging and complex decisions that demand thoughtful and innovative policy-making when representing their constituents. The Southern States Energy Board's Annual Energy Briefing to Southern Legislators is a dynamic forum for addressing many issues related to energy and environmental legislation, federal and state policies, administrative and regulatory initiatives, and the implications for economic development. SSEB hosted the 2017 briefing in Biloxi, Mississippi, on July 29, 2017. The Honorable Terry Burton, Senate President Pro Tempore of Mississippi and SSEB Board Member, presided over the event.

Senator Terry Burton called the meeting to order and provided opening remarks, and Mississippi Speaker of the House Philip Gunn welcomed participants to the Magnolia State. Cooperative Federalism was a key theme during the meeting. SSEB's Secretary and Executive Director, Ken Nemeth, presented ways in which state authority can be expanded in cooperation with the federal government.

Alabama Representative Randy Davis, SSEB's Vice Chairman, presented members and participants with the Board's Preliminary 2017 Energy and Environment Legislative Digest, a compendium of energy and environmental legislation passed in member jurisdictions. He highlighted notable legislative trends in subjects impacting the Southeast in light of technology innovation, recent weather events, infrastructure upgrades, and tax credits for energy resource expansion. Rep. Davis also facilitated a panel discussion on 2017 legislative action in the states during which he summarized new laws passed by the Alabama Legislature during the



Rep. Rocky Miller, Rep. Tim Remole, and Sen. Ed Emery of Missouri participate in the roundtable discussion on legislation passed in SSEB member states.

regular session. Tennessee Representative John Ragan, SSEB Board Member, and Oklahoma Representative Weldon Watson, SSEB Treasurer, also shared with participants significant legislation passed in their respective states.

Patrick Sullivan, President of the Mississippi Energy Institute presented “U.S. Energy: The Great Bargain,” and Dr. Sumesh Arora, Director of Energy and

Natural Resources Division within the Mississippi Development Authority, presented “Spurring Innovation in Energy.” Dr. David Gattie, Associate Professor at the University of Georgia’s College of Engineering, and Laura Schepis, Executive Director of the Partnership for Affordable Clean Energy (PACE), presented jointly on net metering. During our event, PACE officially released its new document, co-authored by Dr. Gattie, entitled “Net

Metering: Costs, Customers and a Smarter Way Forward.”

To conclude the meeting, members participated in a legislative roundtable discussion, discussed the 2017 policy resolutions schedule and process, and received a preview of the SSEB’s 57th Annual Meeting by Hon. William E. “Bill” Sandifer, South Carolina House of Representatives and SSEB Executive Committee member.



Southern States Energy Board Members participate in the Board's Annual Energy Briefing to State Legislators.



Sen. Eddie Joe Williams comments on legislation passed in Arkansas during the 2017 regular session.

Programs



Southeast Regional Carbon Sequestration Partnership



The Southeast Regional Carbon Sequestration Partnership is a program underway at the Southern States Energy Board to balance the environmental effects of fossil fuel-powered, electric-generating facilities. SECARB is one of seven Regional Carbon Sequestration Partnerships (RCSPs) nationwide funded by the U.S. Department of Energy's National Energy Technology Laboratory and cost-sharing partners. The primary goal of the SECARB Partnership is to promote development of a framework and infrastructure necessary for the validation and deployment of carbon dioxide capture and storage (CCS) technologies.

Key to the success of any CCS project is an operator's ability to predict and monitor the flow of CO₂ molecules injected into the subsurface and to communicate this information to stakeholders and regulators. The SECARB Early Test began in 2009 at Denbury Onshore, LLC's active CO₂-enhanced oil recovery operation in the Cranfield oilfield near Natchez, Mississippi. The SECARB team successfully field-tested a variety of CO₂ monitoring, verification, and accounting (MVA) technologies to determine their commercial viability and robustness. The SECARB MVA program at Cranfield concluded in January 2015, and the cumulative total stored CO₂ mass monitored at Cranfield is 5,371,643 metric tons. The three research wells were safely plugged and abandoned in accordance with the Mississippi Oil and Gas Board rules in April 2015. Denbury's commercial operations continue.

This project was the first of the RCSPs to begin CO₂ injection and the first to achieve the goal of monitoring a one million metric ton injection. Data collected at Cranfield is utilized by the SECARB team and researchers worldwide to further refine reservoir models for similar geologic settings. In 2010, the international Carbon Sequestration Leadership Forum (CSLF) recognized the Early Test project at Cranfield for its outstanding accomplishments in advancing CCS MVA technologies.

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The primary goal of the SECARB Partnership is to promote development of a framework and infrastructure necessary for the validation and deployment of carbon dioxide capture and storage (CCS) technologies.

Knowledge gained from the Early Test is being applied at the Anthropogenic Test site in Alabama, where CO₂ injection began in August 2012. The project represents the largest U.S. demonstration project to date integrating CO₂ capture, transportation, and geologic storage utilizing anthropogenic (man-made) CO₂ from a coal-fired power plant. Under separate funding, the CO₂ is captured at Alabama Power Company's James M. Barry Electric Generating Plant located

in Bucks, Alabama. The CO₂ is transported 12 miles by pipeline and permanently stored within a deep saline formation at the Citronelle oilfield operated by Denbury. CO₂ injection ended in September 2014; more than 114,000 metric tons of CO₂ was injected and stored at the site. The SECARB partners are applying proven and experimental MVA technologies to monitor CO₂ movement in the subsurface during the current post-injection phase. In November 2013, the CSFL recognized the Anthropogenic Test project at Citronelle for its outstanding accomplishments in advancing CCS technologies.

Through a “Knowledge Sharing” activity established in 2011, the SECARB partners are facilitating interaction among scientists, researchers, and industry during which lessons learned from CCS projects around the globe are shared to further advance the technologies. Several SECARB partners and SSEB staff are serving as members of the U.S. Technical Advisory Group, approved by the American National Standards Institute, to mirror the International Organization for Standardization (ISO) Technical Committee 265 effort for the development of guidance and standards for carbon capture, transportation, and geological storage. Participation in this endeavor will ensure that the ISO process is both technically sound and the U.S. consensus position is represented.

SECARB continues to characterize the region’s onshore and offshore geologic storage options, monitor federal and state regulatory and legislative activities, and support education and outreach efforts related to the program. Please visit the SECARB website at www.secarbon.org for the current status of all projects and related activities, upcoming meetings and workshops, social media subscriptions, and more.



Southeast Offshore Storage Resource Assessments

The Southern States Energy Board (SSEB) is leading a coalition of southern universities and technical experts to assess prospective geologic storage resources for carbon dioxide (CO₂) in the State and Federal waters of three planning areas:

- The Mid-Atlantic;
- The South Atlantic; and
- The eastern Gulf of Mexico.

The goal of the Southeast Offshore Storage Resource Assessment (SOSRA) project is to develop a high-level approximation of the amount of CO₂ that might be stored utilizing key geologic and environmental factors that influence the storage potential.

The research includes significant advances in knowledge and technology that facilitate assessment and quantification of offshore CO₂ storage resources in the SOSRA region and provide a pathway toward commercialization.

The project is funded by the U.S. DOE NETL and SSEB serves as the overall lead for the project. To perform the work, SSEB has partnered with Virginia Polytechnic Institute and University's Virginia Center for Coal and Energy Research, the University of South Carolina, and Oklahoma State University for local management of the three planning areas. Virginia Department of Mines, Minerals, and Energy, South Carolina Geological Survey, Geological Survey of Alabama, Advanced Resources International, Inc., and Gerald R Hill, PHD, Inc. also provide technical expertise to the project.

During Phase I the team determined that the data quality and coverage within the study areas were adequate to facilitate a detailed assessment of offshore geology and quantification of CO₂ storage potential. Phase I of the project was completed in 2017 with a recommendation from the team to move into Phase II.



Dr. Jerry Hill, SSEB, speaks at SECARB's 12th Annual Stakeholders' Briefing.

Establishing an Early CO₂ Storage Complex in Kemper County, Mississippi: Project ECO₂S

The Southern States Energy Board (SSEB) is a leading a coalition of universities and technical experts to establish a 438 million metric tons of capacity CO₂ Storage Complex adjacent to the Kemper County energy facility. Project ECO₂S will pursue key advances in CO₂ storage knowledge and technology, including optimizing CO₂ storage efficiency, modeling the fate of injected CO₂, and establishing residual CO₂ saturations. In addition, Project ECO₂S will involve “real-life” experiences, issues, and challenges of scaling-up from its regional, pre-feasibility assessment of CO₂ storage to establishing a site-specific, CO₂ storage complex, including capturing the “lessons learned” in making this transition.

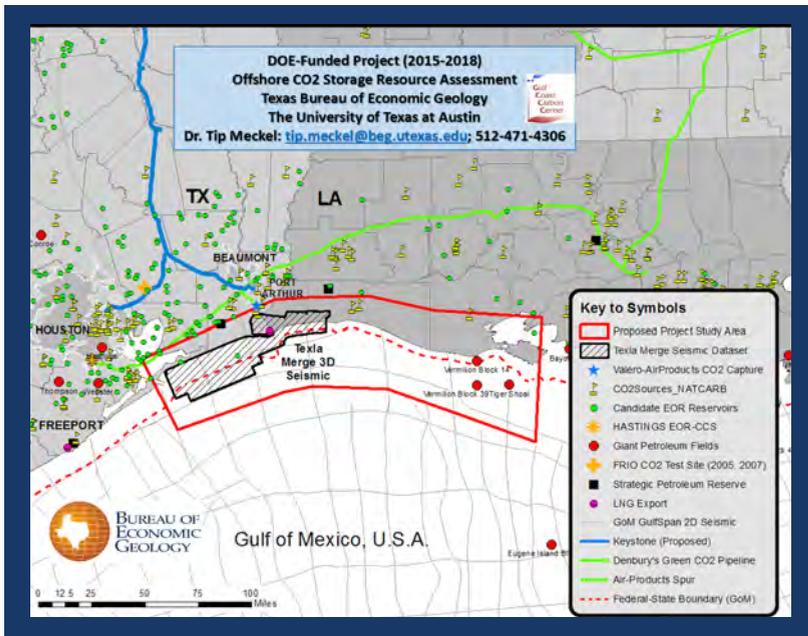
Project ECO₂S is funded by the U.S. DOE NETL and headed by SSEB. Mississippi Power Company is serving as the site host as well as the primary cost share partner. The project includes technical and field implementation support from Advanced Resources International and will obtain analytical support from two national laboratories (Los Alamos and Lawrence Berkeley), a host of universities (Auburn University, Mississippi State University, Oklahoma State University, Virginia Polytechnic Institute and State University, University of Alabama at Birmingham, and University of Wyoming) and other key participants, including Battelle Memorial Institute and the Geological Survey of Alabama.

Three regionally extensive porous and permeable saline formations with thick confining systems have been identified at the Storage Complex that provide attractive settings for injection and storage of CO₂. The Complex will have the capacity to receive 3 million metric tons per year of CO₂, and potentially three times as much as determined by pre-feasibility models for a period of at least 30 years.



SSEB hosts a tour of the Project ECO₂S characterization well site for National Energy Technology Laboratory Director Dr. Grace Bochenek.

Offshore CO₂ Storage Resource Assessment of the Northern Gulf of Mexico (Texas–Louisiana)



The University of Texas at Austin is leading a complementary project funded under the same DOE program entitled the Offshore CO₂ Storage Resource Assessment of the Northern Gulf of Mexico (Texas–Louisiana). The University of Texas at Austin, in partnership with Southern States Energy Board, will study the inner continental shelf portions of the Texas and Louisiana Gulf of Mexico coastal areas in order to assess the CO₂ storage capacity of depleted oil and natural gas reservoirs. This work also will assess the ability of regional saline geological formations to safely and permanently store nationally significant amounts of CO₂.

The objective of this study is to conduct an offshore carbon storage resource assessment of the study area. This will be completed by 1) assessing the CO₂ storage capacity of depleted oil and natural gas reservoirs utilizing existing data (well logs, records and sample descriptions from existing or plugged/abandoned wells, available seismic surveys, existing core samples, and other available geologic and laboratory data) from historical hydrocarbon industry activities in the heavily explored portions of the inner continental shelf of the Texas and Louisiana Gulf of Mexico coastal areas; and 2) assessing the ability and capacity of saline formations in the region to safely and permanently store nationally-significant amounts of anthropogenic CO₂ using existing data. Additionally, the study will identify at least one specific site with the potential to store 30 million tons of CO₂ or more, which could be considered further for a commercial or integrated demonstration project in the future. The project also will engage the public and other stakeholders in the region through outreach activities to inform them of the study's objectives and results.

Industrial Carbon Capture, Utilization, and Storage

In May 2016, the Southern States Energy Board added a new project to its carbon management portfolio. While much of the Board's carbon dioxide capture, utilization and storage (CCUS) research, development, and demonstration to date has been focused on the power sector, our staff currently is identifying opportunities for CCUS technology deployment at large, industrial sources of CO₂. Industrial CCUS (ICCUS) holds great promise for reducing CO₂ emissions in our region, particularly in areas where petrochemical facilities and refineries are located in clusters. CO₂ at many industrial sources can readily be captured, treated and utilized, thereby opening up economic opportunities while reducing atmospheric CO₂ levels.

In cooperation with the U.S. Department of Energy's Office of Fossil Energy, SSEB has assembled a working group of state and industry CCUS experts representing Louisiana, Mississippi, and Texas. The working group provides guidance and assistance to DOE and SSEB in developing an ICCUS roadmap for the purpose of rapidly implementing industrial CCUS applications that value CO₂ as a commodity.

The working group first convened in New Orleans, Louisiana, on June 14-15, 2016. During the kickoff meeting, the working group members shared their CCUS project experiences and then began examining policy and financial obstacles to the deployment of ICCUS technologies. Following the meeting, SSEB documented lessons learned and started building a "toolbox" for industry on implementing CCUS technologies.

A public workshop was held in November 2016 aimed at reaching interested parties. SSEB and its team members are following up on the workshop by helping to foster business and local/state government relationships necessary to facilitate commercialization of industrial CCUS in the region.



Participants in the November 2016 ICCUS Workshop.

Southeast Regional Carbon Sequestration Technology Training Program



Carbon capture, utilization, and storage (CCUS) technologies have tremendous potential for reducing carbon dioxide emissions and mitigating global climate change. These technologies encourage economic growth and have manageable influence on energy use. Deploying these technologies on a commercial scale will require expanding the workforce, including geologists, engineers, scientists, and technicians, trained in CCUS specialties.

In 2009, the U.S. Department of Energy's National Energy Technology Laboratory selected seven projects to help develop regional sequestration technology training centers in the United States. The Southeast Regional CO₂ Sequestration Technology Training Program (SECARB-Ed) was managed and administered by the Southern States Energy Board from November 16, 2009, to November 15, 2012. During this performance period, the efforts of SECARB-Ed and partners resulted in a total of 1,951 professional development hours awarded to 1,131 participants.

In a second initiative, SSEB proposed continuing its in-house elements of the SECARB-Ed program under a grant from the DOE's Office of Fossil Energy and the Office of Clean Coal & Carbon Management. This year's highlights include collaboration between EnTech Strategies, SECARB-Ed, and Southern Company, to support the Research Experience in Carbon Sequestration (RECS) 2017 in Birmingham, Alabama, on July 22-29. RECS is the premier CCUS education and training experience in the United States. The intensive 7-day program combines classroom instruction with group exercises, site visits, and field activities and covers the science, technology, policy, and business topics associated with CCUS deployment.



Committee On Clean Coal Energy Policies And Technologies

Composed of governor's representatives, state legislators, state regulators, industries, academia, and business executives, the Southern States Energy Board's Committee on Clean Coal Energy Policies and Technologies advances opportunities for applied research and development, investment, international cooperation, and technology design for coal in the southern region. During its tenure, the committee has been responsible for coupling the development of clean coal technologies with potential domestic and international economic development opportunities. The program also affords partners the opportunity to leverage U.S. resources to influence international occasions for the deployment of those coal-based technologies that mitigate greenhouse gases and provide carbon storage solutions to reduce the effects of carbon dioxide emissions worldwide.

SSEB maintains a productive partnership for examining issues related to coal and carbon management with the U.S. Department of Energy's Office of Fossil Energy and the Office of Clean Coal & Carbon Management. International efforts, such as participation in the 23 nation Carbon Sequestration Leadership Forum, are coordinated with the Cleaner Fossil Fuel Systems Committee of the World Energy Council and the United States Energy Association.

Recently, the committee has been focusing on those issues related to carbon management and coal use in the South, especially legislation currently being considered at federal and state levels. The committee met on May 22-23, 2017, in Kingsport, Tennessee. On May 22 the committee held a roundtable discussion.

Outcomes of the roundtable discussion included stated intentions by several SSEB legislative members to bring resolutions before the board at its Annual Meeting in late September 2017. Additionally, committee members provided assurances that the key issues and priorities highlighted during the discussion would be brought forth during meetings with governors' offices, legislative leadership, state regulators, and other related national and regional organizations.



Rep. Rocky Adkins, House Minority Leader of Kentucky, presides during the SSEB Committee on Clean Coal Energy Policies and Technologies meeting in May 2017.

Key issues under consideration and discussion during this year include:

- The critical loss of coal capacity due to retirement in terms of planning and operating a reliable electric system
- Factors that are impacting jobs in the coal industry; and about regional differences in those jobs
- The role of utilities and industry groups (EEI, EPRI, other) in R&D for clean coal
- The importance of regulation in the decline of coal use in this country
- The outlook for tax incentives and what role should they play in reviving the coal industry. Other tools available that should be considered.
- Programs needed to improve employment opportunities in the coal field
- Critical needs for infrastructure in the next 10 years
- State-level legislative barriers to infrastructure development



Gov. Asa Hutchinson, Arkansas, visits the U.S. Department of Energy's Fossil Energy Exhibit at SSEB's 56th Annual Meeting in September 2016.

Central Appalachian Basin Unconventional (Coal/Organic Shale) Reservoir

Small-Scale CO₂ Injection Test

In recent years a major focus of the Southern States Energy Board and the Virginia Center for Coal and Energy Research (VCCER) at Virginia Tech has been carbon management. Currently, with the support of SSEB, the VCCER is in phase 3 of the project, Central Appalachian Basin Unconventional (Coal/Organic Shale) Reservoir Small-Scale CO₂ Injection Test, an almost \$15 million partnership with the National Energy Technology Laboratory of the U.S. Department of Energy to perform a test, injecting 14,500 tons of CO₂ in unconventional geologic reservoirs at two field sites. A 510-ton injection has been successfully completed in a horizontal organic shale well in Morgan County, Tennessee. 14,500 tons of CO₂ have been injected into three vertical coalbed methane wells in Buchanan County, Virginia.

This project will reduce uncertainties associated with long-term CO₂ storage options in unconventional reservoirs. To accomplish this goal, the project team is designing and implementing geologic characterization studies and CO₂ injection and monitoring activities to test unconventional storage formations in central Appalachia. The project team is tracking the migration of CO₂ throughout the injection and post-injection phases. One aspect of this project is enhanced gas recovery, potentially resulting in significantly increased revenue and value of reserves to offset the additional costs of carbon storage, which will be advantageous to the energy consumer as well as the energy industry. It is anticipated that this project will conclude with monitoring and analysis during the current phase 3 and end in December 2017 with the wells returned to production wells.



Research Team at the Morgan County, Tennessee CO₂-Enhanced Gas Recovery test in a horizontal shale gas well.

SSEB supports the field demonstration by providing project management and outreach and education expertise. SSEB ensures that the results and data gathered as part of this research effort and pilot study are disseminated in a timely fashion. The information is distributed through the Southeast Regional Carbon Sequestration Partnership and the other Regional Carbon Sequestration Partnerships. Then, the data is integrated into the National Carbon Sequestration Database and Geographic Information System (NATCARB) and the Fifth Edition of the DOE Carbon Sequestration Atlas of the United States and Canada.

Transuranic Waste Transportation

The SSEB region is home to two of the Department of Energy's national laboratories with large reserves of Cold War era contaminants identified for disposal as a part of the agencies environmental management mandate. The geographical proximity of the Oak Ridge National Laboratory and the Savannah River Site and the impending shipments of waste materials from them destined for the Waste Isolation Pilot Plant (WIPP) was the impetus for the creation of the Transuranic Waste Transportation (TRU) Working Group. This group of radiological health professionals and emergency response personnel receive funding from the Board, in excess of \$1 million dollars, to establish programs within their states to support the national campaign and respond to any potential incident involving a shipment. After the accident and subsequent three year closure (February 2014 - April 2017) of the WIPP site in Carlsbad, New Mexico, the TRU Working was integral in maintaining their level of preparedness for the reopening of the facility. Therefore, prior to the resumption of the WIPP campaign, SSEB was enlisted by DOE's Carlsbad Field Office to plan a roadshow. The roadshow involved SSEB staff, DOE management, Commercial Vehicle Safety Alliance officials and SSEB WIPP program managers visiting each southern corridor state to educate and inform first responders, community leaders and the general public of the various elements of the shipping program. This outreach effort helped to reinstitute institutional protocols which were standard practice before the site's closure.



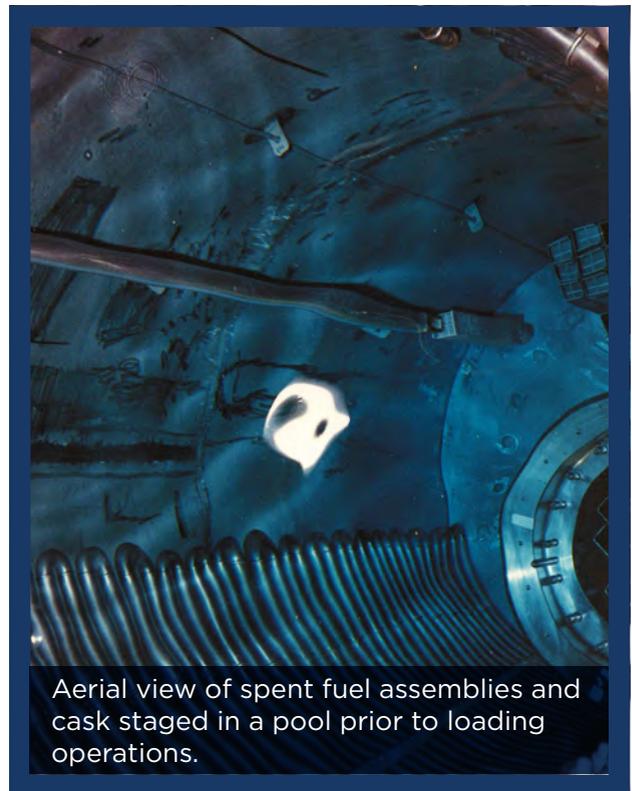
Since WIPP reopened, several TRU Waste shipments have departed from the south without occurrence. Projected TRU Waste shipments for the region in the upcoming year (August 2017 - July 2018) include 40 from the Oak Ridge National Laboratory and 10 from the Savannah River Site. As a result of the renewed shipping schedule, SSEB TRU Waste corridor states continue their training regimen to respond effectively to any potential transportation accident scenario. In this regard, the state of Mississippi has begun planning efforts for a Waste Isolation Pilot Plant Exercise or WIPPTREX to be held next year in Pearl,

Mississippi, on March 22-24. The WIPPTREX will allow first responders in the state along the I-20 corridor to validate their knowledge and skills for remediating an accident involving a TRU Waste shipment.

Foreign Research Reactor Spent Nuclear Fuel Shipments

The Southern States Energy Board is steadily approaching nearly a quarter of a century partnership with the National Nuclear Security Administration's Office of Material Management and Minimization (M3) to remove or dispose of U.S. origin highly-enriched uranium (HEU) and low-enriched uranium from foreign countries. In the early 1990s the Department of Energy (DOE) enlisted the efforts of the Board when it was determined an urgent relief shipment of these materials would be entering the U.S. via the Military Ocean Terminal Sunny Point in North Carolina en route to the Savannah River Site (SRS). SSEB responded by creating an adhoc committee composed of professionals representing various disciplines to oversee the coordination, transportation, and emergency response planning efforts associated with the return of these materials. Eventually, DOE would conduct an extensive environmental impact statement which recommended the Naval Support Activity Charleston as the east coast port of entry for the remainder of these shipments. Thus began the formalization of SSEB's Foreign Research Reactor Spent Nuclear Fuel Transportation Working Group, which to this present date assists DOE with the mission of reducing and protecting vulnerable nuclear and radiological material located at civilian sites worldwide.

Most recently, the Working Group participated on a conference call in May 2017 for the planning of a summer shipment destined for SRS. To date 67 shipments, the majority (55) of which have entered the U.S. via the southern region (Naval Support Activity Charleston), have been completed from 33 countries. Meanwhile, the Canadian Campaign which initiated in the summer of 2015 involving the return of HEU from the Chalk River facility in Ontario continues to progress without incident. The majority of M3's domestic movements traverse many southern corridor states en route to their eventual disposition at SRS. Therefore, SSEB will continue working with the Department and its member states along the shipping routes to acquire and maintain high competencies of training and preparedness for this vitally important nonproliferation effort.



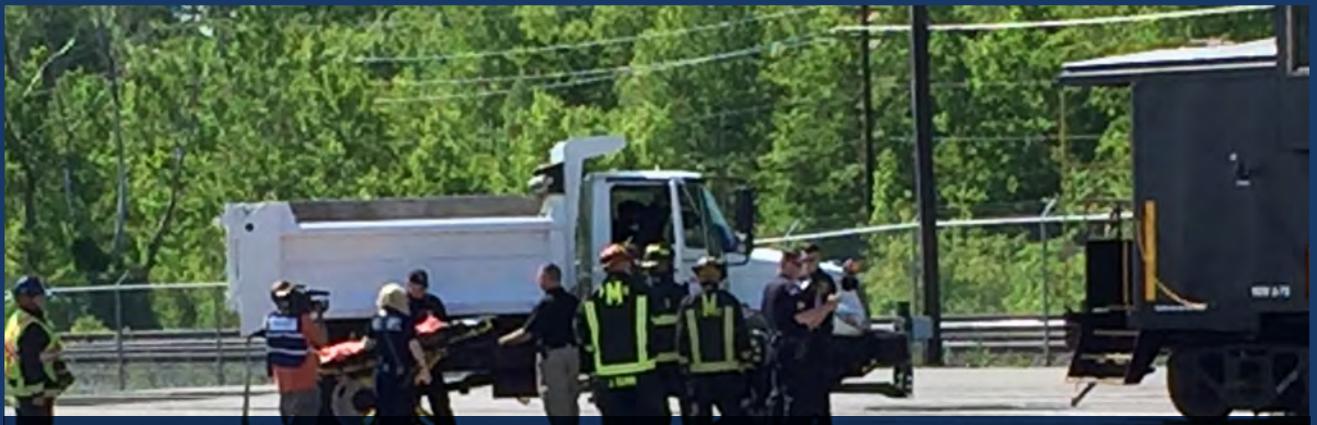
Aerial view of spent fuel assemblies and cask staged in a pool prior to loading operations.

Southern Emergency Response Council

In 1972, a majority of the Board's governors formed the Southern Emergency Response Council (SERC) as a committee responsible for the administration of a mutual aid agreement offering state-to-state assistance in the case of a radiological incident involving a nuclear power plant. The SERC signatory states include Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

The Southern Mutual Radiation Assistance Plan or SMRAP is the documentation which identifies how the procedures would be conducted in the event of such an emergency. Created as a blueprint for coordinating radiological emergency assistance capabilities among participating states in the southern region, SERC representatives review, revise, and administer SMRAP on an annual basis to reflect changes in state emergency response capabilities and equipment. This document outlines the mutual aid agreement, the implementation process, emergency response contacts, and available state resources. As a part of the scope of this endeavor, the Southern States Energy Board acts as regional coordinator to simulate the activation of the SMRAP during state nuclear power plant exercises. Since the beginning of the year, several states have incorporated SSEB into their evaluated drills and have made contact to request personnel, equipment, vehicles, and subject matter expertise from their border states.

A SERC meeting is held once per year in conjunction with the Organization of Agreement States meeting. This gathering allows members the opportunity to discuss matters related to SMRAP. The group met recently on August 21, 2017, in Memphis, Tennessee, to ratify the current edition of SMRAP.



Emergency responders discuss accident remediation during an exercise involving a Navy spent fuel shipment.

Radioactive Materials Transportation

The Radioactive Materials Transportation Committee is the mechanism through which the Board collaborates with the Department of Energy to developing a strategy to safely transport and dispose of the country's inventory of used nuclear fuel and high-level radioactive waste. The mission of managing the commercial nuclear fuel program is under the direction of DOE's Office of Integrated Waste Management (IWM) within the Office of Nuclear Energy. SSEB entered into five year cooperative agreement with IWM to address policy issues, shipment planning and preparedness, communications and to hold biannual meetings of its Committee composed of gubernatorially-appointed professionals (e.g. radiological health officials, field specialists, state emergency response planners, and law enforcement).

In March of 2017, SSEB staff and Radioactive Materials Transportation Committee representatives from Maryland and Texas attended the IWM Core Group Meeting in Washington, D.C. During this meeting, they received briefings pertaining to the status of several ongoing activities of the IWM. In addition, a segment of the meeting was dedicated to a Execution Strategy Analysis Workshop during which DOE contractors debuted some of their models covering the following topics: Transportation; Consent Based Siting; National Environmental Policy Act Process; Storage/Licensing; and Integration of Prospective Sites. In August of 2017, the IWM Core Group journeyed to Colorado Springs, Colorado, to meet again with a focus on rail transportation and routing. As a part of this gathering SSEB staff and committee members toured the Transportation Technology Center which employs 48 miles of railroad track available for testing locomotives, vehicles, track components, and signaling devices. The DOE's Rail/Routing Ad Hoc Working Group also convened during this meeting and held a mini workshop during which state volunteers used software to generate potential rail transport routes and evaluate the impacts on their jurisdictions. SSEB Committee members from Arkansas and Tennessee participated in this exercise and DOE invited representatives from the major railroad companies to attend and answer questions regarding their industry transportation practices.



Energy and Environment Legislative Priorities and Analyses

The Southern States Energy Board's Legislative Digest serves as a compendium of energy and environmental legislation passed by the Board's 18 member states and territories. For more than four decades, SSEB has published the annual digest as a reference tool and guide for state legislators and their personnel. The digest examines and tracks legislative trends by state.

During the 2017 legislative sessions, the southern states passed more than 300 energy and environmental bills. As technology advances, SSEB member states continue to address issues surrounding energy development and distribution. Within the digest, there are many bills relating to pipelines, generation, infrastructure development, transmission, and siting concerns as well as the evolving markets pursuant to alternative energy development. Our member states continue leading the way to American energy independence with their abundant, diverse resources coupled with legislative and regulatory actions that foster economic growth.

When examining legislation passed state-by-state, it is not unusual to observe certain trends or themes. Several states passed legislation pertaining to the construction and regulation of oil and gas pipelines. Arkansas established provisions for rate adjustments to promote the expansion of natural gas infrastructure. Three states, Alabama, Kentucky, and Texas, all approved resolutions urging the Congress of the United States to enact legislation to expand and extend the current federal tax credit for carbon capture, utilization, and storage under Section 45Q of the Internal Revenue Code.

Many states addressed tax credits for both renewables and natural gas expansion. Tennessee and North Carolina imposed certain temporary moratoriums on new construction of wind energy facilities, while Maryland established a permanent prohibition of hydraulic fracturing of a well for the exploration of oil or natural gas. Alabama, Arkansas, and Georgia passed measures establishing procedures relating to the emergent technology of autonomous vehicles.

Regarding environmental trends, six states (Louisiana, North Carolina, South Carolina, Texas, Virginia, and West Virginia) passed a bevy of legislation meant to address the chronic problem of flooding and stormwater management that has plagued the Southeast in recent years.



Partnerships



Our Partners

The Southern States Energy Board has many collaborative efforts underway and through these robust partnerships with government, business, industry, and academia, SSEB states and territories benefit from the expertise of energy and environmental leaders in the country.

The core of this strategy pivots on the Board's Associate Members who represent the region's and Nation's energy providers, resource companies, educational institutions, and technology developers. The SSEB Associate Members program was founded in 1981 by Kentucky Governor John Y. Brown during his chairmanship.

The Associate Members act in an advisory capacity to the Board. With increasing interest from the region's prominent energy industries and organizations, SSEB gains a broad depth of knowledge and diverse perspectives on the impact of energy and environmental policies and regulations on the region's economy.

SSEB participates on the U.S. Technical Advisory Group of the International Organization for Standardization (ISO) Technical Committee 265 for the development of guidance and standards for carbon capture, transportation, and geological storage. Knowledge gained from SSEB's carbon management programs is being transferred through the ISO process to ensure that standards are both technically sound and that the South's position is represented. SSEB also is a founding member of the Global CCS Institute, an international organization focused on accelerating the deployment of CCS as an imperative technology.

Through a collaborative effort with the U.S. Department of Energy's Office of Fossil Energy and the U.S. Energy Association, the Board became a founding stakeholder in the Carbon Sequestration Leadership Forum in 2003. The policy and technical forums of CSLF further international cooperation and understanding of carbon dioxide capture, utilization, and storage; legal and regulatory issues; intellectual property; and many related matters. The CSLF has recognized SSEB's two SECARB Partnership projects as international programs of excellence.

SSEB also works closely with the Government of Canada. This consular presence promotes business development, investment, tourism, culture, and information exchange between Canada and SSEB states and territories. The Board's partnership with Consuls General offices throughout the South has resulted in economic, educational, and scientific opportunities for our member states.

On January 6, Scott Moe, Saskatchewan's former Minister of Environment, met with Louisiana Department of Natural Resources' Secretary Tom Harris and Assistant Secretary for Mineral Resources David Boulet to discuss the role of provincial and state governments in carbon capture, utilization, and storage commercialization.

The minister and secretaries were joined by representatives of SSEB and the Louisiana State University (LSU) Center for Energy Studies. The Louisiana Department of Natural Resources is working with SSEB, LSU, and the U.S. Department of Energy's Office of Fossil Energy on the Central Gulf Coast Initiative for CO₂ Utilization and Storage Acceleration (CO₂ USA).

On a national level, SSEB is an affiliate member of the National Association of State Energy Officials. In this relationship, SSEB works closely with state energy office directors in the southern region on a wide array of programs, ranging from energy efficiency, weatherization, and energy security and infrastructure.

To foster regional cooperation and collaboration, the Board continues a strong working relationship with other regional organizations such as the Eastern Interconnection States Planning Council, the Southern Legislative Conference of the Council of State Governments, the Southeastern Association of Regulatory Utility Commissioners, the Virginia Coal and Energy Alliance, the Carbon Utilization Research Council, and the Southeast Energy Efficiency Alliance. SSEB strives to foster ongoing relationships with other regional and state organizations with similar goals.

SSEB's Radioactive Materials Transportation Committees have worked in conjunction with their counterpart committees of the other "state and tribal regional groups" including the Council of State Governments (Northeastern and Midwestern Offices), Western Interstate Energy Board, National Conference of State Legislatures, and Western Governors' Association. This collaboration has resulted in the development of national policy and initiatives between the states, tribes, and Department of Energy for consultation and cooperation regarding issues associated with the safe transport of radioactive materials.

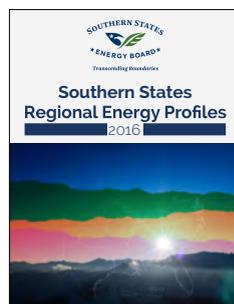
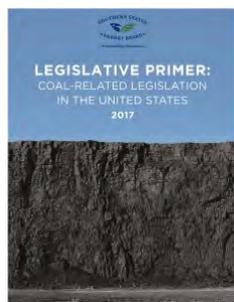
These are only a few examples of the collaborative relationships SSEB experiences through its diverse partnerships. Building partnerships is an essential goal of the Board in order to leverage opportunities and expand its expertise to assist its member states. These collaborations allow SSEB to focus its program and financial commitments to the benefit of the entire southern region.



Educating Stakeholders

Southern States Energy Board prioritizes outreach and education through a variety of venues including keynote presentations, panel discussions, conferences and workshops, exhibits, and myriad activities meant to engage public officials and other stakeholders. SSEB strives to enhance and improve understanding and awareness of domestic energy development, energy and environmental policies, and clean energy technologies and their importance in the region. Examples of significant engagements from the past year include:

- Industry Leaders at Wye River Workshop – State Government Perspectives on Invigorating the U.S. Clean Coal Industry | Presentation
- Virginia Coal and Energy Alliance meeting “SSEB Coal: Launching a New Era” | Opening Presentation and Panel Discussions
- Green Guy Radio – Southern States Energy Board Energy Issues in the South | Radio Interview
- Carbon Sequestration Leadership Forum – Best Practices for Public Outreach and Education in dealing with CCS Projects | Presentation
- Energy Institute of Alabama Energy Day – Future of Energy Industry in the South | Panel Moderator
- CO₂ Carbon Management Workshop – Carbon Management Update from the Southern States Energy Board and SECARB | Presentation
- Power Experts Conference – Energy Issues in the Southern States Energy Board Region | Presentation
- Southeast Environmental Conference – Fresh Look at the Utility of Tomorrow | Presentation
- Arkansas Joint Energy Committee – SSEB Briefing to the Legislators | Presentation
- SSEB Associate Member Meetings – Host
- SSEB Annual Energy Briefing to Southern Legislators | Presentation
- State Energy Offices – Briefing on SSEB Programs and Activities | Presentation
- SECARB 12th Annual Stakeholder Briefing and Partners Meetings for the Southeast Offshore Storage Resource Assessment and Project ECO₂S Programs | Host and Facilitator



- National Nuclear Materials Transportation Stakeholder Forum and Radioactive Materials Transportation Committee Meetings | Session Organizer and Moderator
- Committee on Clean Coal Energy Policies and Technologies Meeting | Host
- Research Experience in Carbon Sequestration (RECS) Program | Co-sponsor and CCS Field Site Host
- Government Consulate (Canada) | Participant
- NARUC, Southface, NASEO, Clean Energy Vehicles | Participant
- Southwest Virginia Coalfields Legislative Reception | Participant
- Governor's Summit on Energy Security and Infrastructure | Host and Facilitator
- Petra Nova Celebration | Participant
- Global CCS Institute's Annual DC Forum | Presentation
- International Energy Agency's Greenhouse Gas R&D Programme Peer Review of SECARB Program | Presentations
- Industrial CCUS Forum | Host and Presentations
- North American Energy Ministers Trilateral Meeting – 3rd and 4th CCUS Workshops with Briefings on SECARB Activities | Presentations
- Midwest Geological Sequestration Consortium – SECARB and Project ECO₂S | Presentation
- U.S.-Norway Collaboration on CCS/CCUS – Regional Commercialization of Industrial CCUS | Presentation
- National Energy Technology Laboratory Director's Tour of SSEB's CCS/CCUS Project Sites | Host
- 13th International Conference on Greenhouse Gas Control Technologies – Demonstration of CO₂ Containment and Non-Endangerment at the SECARB “Anthropogenic Test” Site near Citronelle, Alabama | Presentation
- American Institute of Chemical Engineers – Adapting Power Generation Lessons Learned to Industrial CO₂ Capture | Presentation
- Southeastern Energy Society | Presentation
- Texas WIPPTREX 2016 | Exercise Evaluator
- Radioactive Materials Transportation Committee Meetings | Host
- Mississippi WIPP Program Update / Planning Meeting | Speaker
- Waste Isolation Pilot Plant – Savannah River Site Corridor Roadshow | Speaker
- Spring 2017 Radiological Working Group Meeting | Speaker
- Mississippi WIPPTREX 2018 Planning Meeting | Participant in Planning Session
- Spent Nuclear Fuel Rail/Routing Ad Hoc Working Group Workshop | Presenter

Sources of Support

The Southern States Energy Board’s primary source of funding is its annual appropriations from the 18 member states and territories. Each member’s share is computed by a formula written into the original compact. This formula is composed of an equal share, per capita income, and population. The Board has not requested an increase in annual appropriations since 1987. The compact authorizes the Board to accept funds from any state, federal agency, interstate agency, institution, person, firm, or corporation provided those funds are used for the Board’s purposes and functions.

SSEB continues to lead an Associate Members program composed of industry partners who provide an annual contribution to the Board. Membership includes organizations from the nongovernmental sector, corporations, trade associations, and public advocacy groups. The Associate Members program provides an opportunity for public officials and industry representatives to exchange ideas, define objectives, and advance energy and environmental planning to improve and enhance the South’s economic and environmental well-being.

SSEB also receives corporate sponsorships, registration fees, and in-kind contributions to support the expenses associated with the SSEB annual meeting, research projects, and events.

State Appropriations

Alabama \$32,572	Maryland \$37,192	South Carolina \$31,372
Arkansas \$31,027	Mississippi \$29,077	Tennessee \$34,267
Florida \$47,212	Missouri \$36,247	Texas \$55,402
Georgia \$35,782	North Carolina \$37,042	U.S. Virgin Islands \$25,297
Kentucky \$32,197	Oklahoma \$32,512	Virginia \$38,362
Louisiana \$33,817	Puerto Rico \$25,597	West Virginia \$28,732

Year in Pictures



Scan this QR code to view more photographs from past events.



Joe Giove discusses DOE coal-related projects with members of the SSEB Committee on Clean Coal Energy Policies and Technologies, May 2017.



SSEB and members of the Carbon Utilization Research Council meet with Kentucky Congressman Hal Rogers on June 28, 2017.



The crowd listens as Sarah Wilshaw, Consul General of Canada in Dallas, Texas, speaks at the 56th Annual Meeting.



Ken Nemeth, Jim Powell, and Rafael Llompert representing SSEB meet with Puerto Rico's Governor Ricardo Rosselló.



Board Members participate in the 56th Annual Meeting in Rogers, Arkansas.



Rep. Randy Davis of Alabama engaging with presenters during the Board's Annual Meeting.



Kathryn Baskin, SSEB's Deputy Director, is recognized by Gov. Hutchinson for her outstanding leadership and dedication as she says farewell and prepares for retirement after 40 years of service to the Board.



Dan Bartlett, Executive VP of Corporate Affairs at Walmart, speaks at the 56th Annual Meeting.



Sen. Mark Norris, Tennessee, speaks at the 56th Annual Meeting in September 2017.



Members welcome Sen. Dave Sypolt, West Virginia, who was recently appointed to the Board as he highlights bills passed in West Virginia in 2017.



Secretary Charles Snaveley, Rep. Jim Gooch, Jr., and Sen. Brandon Smith casting their vote for a resolution during the Board's Business Session.



Recognizing members of the Arkansas-based SSEB 56th Annual Meeting Planning Committee for their support in coordinating a successful event.



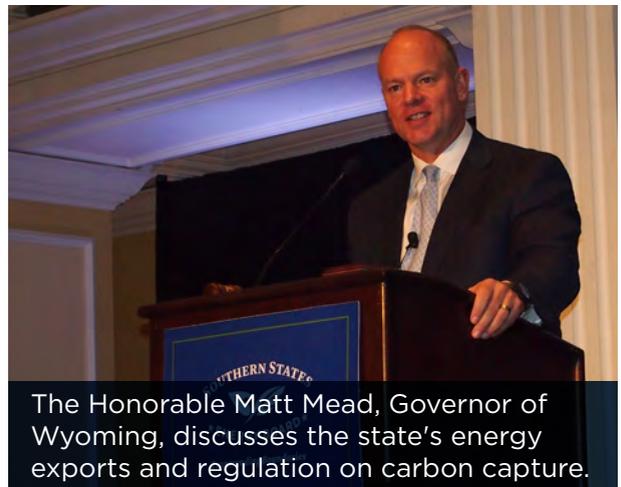
Rep. Lynn Smith of Georgia provides remarks during the Board's Annual Meeting.



Gov. Asa Hutchinson announces the formation of the Governors Energy Caucus during the Governor's Summit on Energy Security and Infrastructure on Feb. 24, 2017.



Mississippi Speaker of the House Philip Gunn welcomes attendees to Biloxi and offers opening remarks at SSEB's Annual Legislative Briefing.



The Honorable Matt Mead, Governor of Wyoming, discusses the state's energy exports and regulation on carbon capture.

Board Members

2016-2017 Executive Committee

The list of members below reflects officials who serve the Board as of September 1, 2017. For a current roster, please contact the SSEB staff or visit our website at www.sseb.org.



Chairman

The Honorable Asa Hutchinson, *Governor of Arkansas*



Vice-Chairman

Representative Randy Davis, *Alabama*



Chairman-Elect

The Honorable Phil Bryant, *Governor of Mississippi*



Treasurer

Representative Weldon Watson, *Oklahoma*



Member, Executive Committee

The Honorable Kenneth Mapp, *Governor of U.S. Virgin Islands*



Member, Executive Committee

Senator Eddie Joe Williams, *Arkansas*



Member, Executive Committee

Senator Mark Norris, *Tennessee*



Member, Executive Committee

Representative William E. Sandifer, *South Carolina*



Chair, SLC Energy & Environment Committee

Representative Lynn Smith, *Georgia**



Secretary

Kenneth J. Nemeth, *Executive Director, SSEB**

**Ex-Officio, Non-Voting Executive Committee Members*

Members of the Board

Alabama

The Honorable Kay Ivey
Governor

Sen. Jimmy Holley

Sen. Cam Ward (Alternate)

Rep. Randy Davis

Rep. Howard Sanderford (Alternate)

Arkansas

The Honorable Asa Hutchinson
Governor

Sen. Eddie Joe Williams

Sen. Bruce Maloch (Alternate)

Rep. Ken Henderson

Commissioner Ted Thomas
(Governor's Alternate)

Katie Beck (Governor's Alternate)

Florida

The Honorable Rick Scott
Governor

Rep. Mike La Rosa

Kelley Burk (Agriculture
Commissioner's Appointee)

Georgia

The Honorable Nathan Deal
Governor

Sen. Jeff Mullis

Sen. Rick Jeffares (Alternate)

Rep. Lynn Smith

Rep. Chuck Martin (Alternate)

Lauren Curry (Governor's Alternate)

Kentucky

The Honorable Matt Bevin
Governor

Sen. Brandon Smith

Rep. Jim Gooch, Jr.

Secretary Charles Snavely (Governor's
Alternate)

Louisiana

The Honorable John Bel Edwards
Governor

Sen. Dan Claitor

Sen. Gerald Long (Alternate)

Rep. Raymond Garofalo, Jr.

Rep. Blake Miguez (Alternate)

Robert Adley (Governor's Alternate)

Maryland

The Honorable Larry Hogan
Governor

Sen. Thomas Middleton

Sen. Katherine Klausmeier (Alternate)

Del. Dereck Davis

Del. Sally Jameson (Alternate)

Dr. Mary Beth Tung (Governor's
Alternate)

Mississippi

The Honorable Phil Bryant
Governor

Sen. Terry Burton

Sen. Sean Tindell (Alternate)

Rep. Gary Staples

Rep. Angela Cockerham (Alternate)

Alice Perry (Governor's Alternate)

Missouri

The Honorable Eric Greitens
Governor

Sen. Ryan Silvey

Sen. Jeanie Riddle (Alternate)

Rep. Rocky Miller

Rep. Tim Remole (Alternate)

Todd Scott (Governor's Alternate)

North Carolina

The Honorable Roy Cooper
Governor

Sen. Trudy Wade (Alternate)

Rep. John Szoka

Rep. Dean Arp (Alternate)

Oklahoma

The Honorable Mary Fallin
Governor

Sen. A.J. Griffin (Alternate)

Rep. Weldon Watson

Rep. Charles Ortega (Alternate)

Secretary Michael Teague (Governor's
Alternate)

Puerto Rico

The Honorable Ricardo Rosselló
Governor

Sen. Zoé Laboy Alvarado

Sen. Miguel Laureano Correa
(Alternate)

Rep. Victor Parés Otero

South Carolina

The Honorable Henry McMaster
Governor

Sen. Lawrence Grooms

Sen. Thomas Alexander (Alternate)

Rep. William Sandifer

Tennessee

The Honorable Bill Haslam
Governor

Sen. Mark Norris

Sen. Ken Yager (Alternate)

Rep. John Ragan

Commissioner Robert Martineau
(Governor's Alternate)

Texas

The Honorable Greg Abbott
Governor

Sen. Craig Estes

Rep. Drew Darby

Commissioner Christi Craddick
(Governor's Alternate)

U.S. Virgin Islands

The Honorable Kenneth Mapp
Governor

Virginia

The Honorable Terry McAuliffe
Governor

Sen. Frank Wagner

Sen. John Edwards (Alternate)

Sen. John Cosgrove (Alternate)

Del. James W. (Will) Morefield

Del. Charles PoinDEXter (Alternate)

Del. Israel O'Quinn (Alternate)

Hayes Framme (Governor's Alternate)

West Virginia

The Honorable Jim Justice
Governor

Sen. Randy Smith

Sen. Dave Sypolt (Alternate)

**Board roster current as of Sept. 1, 2017*

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Associate Members

2016-2017 Officers



Chairman

William M. Droze
Troutman Sanders, LLP



Vice Chairman

Dave Cagnolatti
Phillips 66



2nd Vice Chairman

George Guidry
Koch Companies Public
Sector, LLC



Immediate Past Chairman

Rudy Underwood
American
Chemistry Council

SSEB's Associate Members program is composed of industry partners that serve in an advisory capacity to the Board Members. Membership includes organizations from the non-governmental sector, corporations, trade associations, and public advocacy groups. The program provides an opportunity for public officials and industry representatives to exchange ideas, define objectives, and advance energy and environmental planning to improve and enhance the quality of life in the South.

- Ameren Missouri
- American Chemistry Council
- American Coalition for Clean Coal Electricity
- American Electric Power
- American Fuel & Petrochemical Manufacturers
- American Gas Association
- American Petroleum Institute
- Carbon Utilization Research Council
- Charah, Inc.
- Chevron Corporation
- Coalition for Fair Energy Codes
- Cooperative Energy
- Dominion Energy
- Duke Energy
- Edison Electric Institute
- Energy Policy Network
- Exxon Mobil Corporation
- INTUS, Inc.
- Koch Companies Public Sector, LLC
- Marathon Petroleum Corporation
- National Coal Council
- National Mining Association
- National Rural Electric Cooperative Association
- Nuclear Energy Institute
- NuScale Power, LLC
- Peabody Energy
- Phillips 66
- SCANA Corporation
- Shell Oil Company
- South Carolina Public Service Authority/Santee Cooper
- Southern Company
- TECO Services, Inc.
- Tennessee Valley Authority
- Troutman Sanders, LLP
- Virginia Center for Coal & Energy Research
- Virginia Coal and Energy Alliance
- West Virginia University

Notes

Notes



Alabama • Arkansas • Florida • Georgia • Kentucky • Louisiana
Maryland • Mississippi • Missouri • North Carolina
Oklahoma • Puerto Rico • South Carolina • Tennessee • Texas
U.S. Virgin Islands • Virginia • West Virginia

SOUTHERN STATES

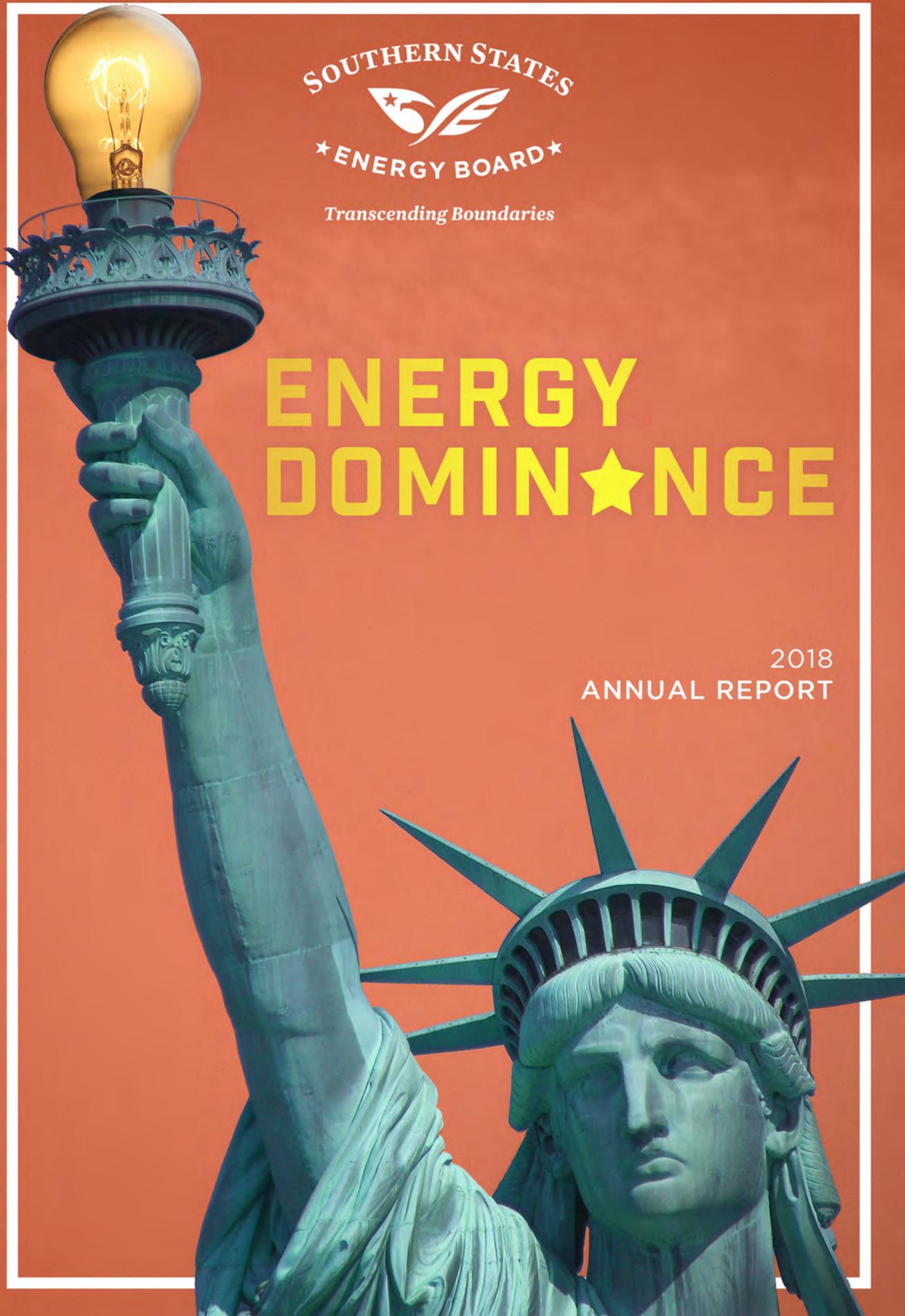


★ ENERGY BOARD ★

Transcending Boundaries

ENERGY DOMINANCE★

2018
ANNUAL REPORT



MISSION STATEMENT

Through innovations in energy and environmental policies, programs, and technologies, the **Southern States Energy Board** enhances economic development and the quality of life in the South.



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Chairman's Message

Governor Phil Bryant

When I first served as Chairman of the Southern States Energy Board back in 2012-2013, our region was experiencing unprecedented growth in the energy sector of our economy. Shale plays across the country were expanding in accordance with hydraulic fracturing and horizontal drilling, creating a huge market for natural gas. New technology designs for solar panels dramatically cut the cost of solar energy to the point where all utilities were contemplating how and where to use this renewable energy resource. Small, modular nuclear reactors were being considered as a potential resource for rural settings. The market for distributed energy generation and battery technologies was beginning to tempt utilities in need of peaking power supplies.

Our theme in 2013 for the Southern States Energy Board's 53rd Annual Meeting was "Energy Revolution in the South." How right were we in our prediction of unprecedented growth for the energy sector? I have been known to express my belief that "energy is the lifeblood of this nation and the soul of our economic development." I believe that statement is as true today as when I first said it. Our economy now is resilient and sustainable because we have been wise in the use of our energy resources and our overabundance is being shared with friends and allies across the globe. Further, we have a President who believes in energy security and diversity, which presents many options for us as we plan our energy strategy for the future. Just in the past five years, we have come from an "energy revolution" to our theme for 2018, "ENERGY DOMINANCE."

What does it mean to be a dominant player on the world's energy stage? As we all know, those who have the energy resources will shape the destiny of nation states that need it. I cannot understate the necessity for energy security and cybersecurity throughout our states and territories. The computer age has brought with it many key and creative advances, none more important than the need to protect our cyberspace from terroristic threats and economic disruptions. Cyber advantage now is not the captive technology of a few wealthy hegemonic countries, but rather a worldwide phenomenon whose master is the intellectual capital to plot computer-based warfare. This requires our interstate electric energy grid system of growing megalopoli to ever increase its sophistication to remain comfortably ahead of those who would seek to devastate and destroy our way of life.

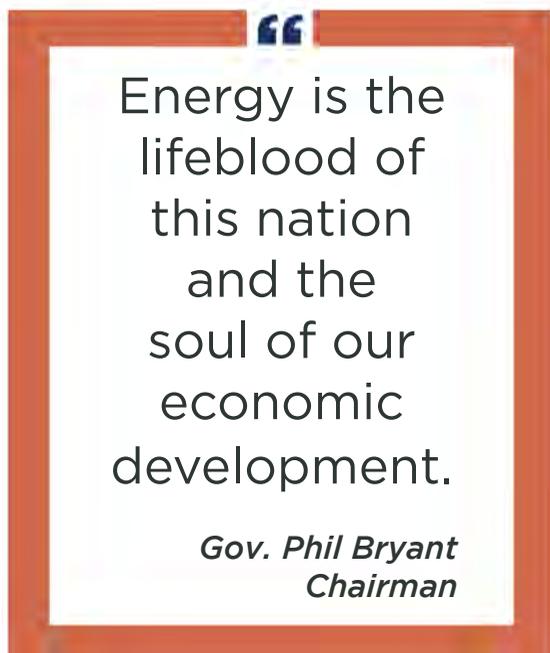
Over the past decade, we have faced environmental challenges from other directions. During 2017, hurricanes Harvey, Irma, Maria, and Nathan devastated and decimated parts of our Southern region. Most affected by these ravaging storms was Puerto Rico, which was blasted by hurricane Maria just six days before our 2017 Annual Meeting. As our Chairman, Governor Asa Hutchinson of Arkansas spoke for all of us when he authored a Board resolution to provide assistance from the Board to Governor Rosselló and our member jurisdiction, Puerto Rico. That assistance now has taken the form of developing a long-term energy strategy and regulatory reform for an Island still reeling from a complete energy resource outage last September and some homes yet without electricity. A Blue Ribbon Task Force, led by SSEB and

knowledgeable stakeholders from Puerto Rico, is exploring options for energy policies, regulatory regimes, financial and economic measures, insurance, and utility privatization.

When hurricane Harvey made land near Houston, Texas, on August 17, 2017, flooding and destruction overwhelmed the city and demolished homes and businesses with losses estimated in billions of dollars. As far away as Nashville, Tennessee, customers were paying higher prices for gasoline because the hurricane's effects were regional and affected many more states than Texas. Year after year, when hurricanes impact our Gulf and Atlantic states, somehow needed emergency fuels have not been where they need to be. The problem is that receiving an emergency motor fuel waiver from the U.S. Environmental Protection Agency is a complicated effort, requiring the affected state to call for an EPA issued waiver, which is then granted by the EPA Administrator following consultation with the Secretary of the U.S. Department of Energy. This process can be lengthy, resulting in a waiver being issued either during or after a storm and too late for emergency motor fuels to be deployed.

To assist in a solution to this problem, which can affect a number of states during each natural disaster, I have asked our SSEB staff to work with states, the American Petroleum Institute, and EPA on the designation of a Regional Emergency Motor Fuel Waiver. Upon approval by agreement with member states, EPA and DOE, the Southern States Energy Board will serve as an early warning system, contacting governors or their designees when a regional waiver is necessary and applying for the waiver with EPA on behalf of our member states. In these natural disaster conditions, we need to have fuel available early for evacuees, then first responders, and finally for those who are returning to their homes after a disaster. This problem occurs whenever there is a major regional weather event and we must come to agreement on a pragmatic, regional solution.

Earlier, I alluded to the many changes taking place across the spectrum of energy resources. Please obtain a copy of the Southern States Energy Board's "Regional Energy Profiles" document to see the dramatic transformations affecting our regional energy resource mix and how the electric utility industry is changing and



adapting across our states and territories. Natural gas and renewable energy are dominating new electric capacity additions. The market penetration of distributed energy resources continues to increase. The age of hybrid and electric vehicles is upon us. And electric generation is evolving toward more diverse, decentralized networks. Our future energy grid will evolve into a communications-enabled, self healing network where digitally enabled utilities and shared service organizations provide fully automated services.

In 2003, the Southern States Energy Board formed and became the manager of the Southeast Regional Carbon Sequestration Partnership (SECARB), through a collaboration with the U.S. Department of Energy. We became the first region to inject, monitor, and permanently store over a million tons of carbon dioxide (CO₂). In a short time, the Partnership injected over 11 million tons in Cranfield, Mississippi, and obtained tremendous amounts of data to inform future CO₂ capture and storage modeling and simulation efforts at other sites. At Cranfield, new and novel monitoring techniques were deployed and field-tested to determine their accuracy, robustness, and effectiveness. Results from this project have provided valuable input for CCS projects deployed throughout the globe.

When our Partnership built a 25 megawatt carbon capture demonstration facility at Plant Barry in Bucks, Alabama, our partners built a dedicated pipeline to Citronelle, where the CO₂ was injected and monitored by the SECARB team. In 2018, SSEB and its partners demonstrated to the state regulatory authority the containment of the CO₂ within the targeted geologic formation and nonendangerment to underground sources of drinking water. Our SECARB Partnership further has been honored. NRG Energy from Houston, Texas, built a 240 megawatt scale up of our carbon capture demonstration facility, sending CO₂ by pipeline over 81 miles to their West Ranch Field. Until CO₂ was utilized, the 60 million barrel field was pumping 300 barrels per day. Today, over 5,000 barrels of oil per day is extracted from the field. This is a great example of the value of the Regional Carbon Sequestration Partnerships creating jobs and providing large-scale injection with industry collaboration! Building public/private enterprises through the Regional Carbon Sequestration Partnerships has proven essential to industry cooperation and the development of jobs and new technologies in the South.

This has been an exciting and fast-paced, outstanding year for Southern States Energy Board projects. During my chairmanship, the Board has funded over 31 colleges and universities in the region and our budget of current projects exceeds \$394 million, a record amount of funding that SSEB returns to its member states. I am honored to place this record of excellence before the members of the Southern States Energy Board. Thank you for placing your trust in me by electing me twice to serve as your Chairman.



Phil Bryant
Governor of Mississippi
Chairman 2012-2013; 2017-2018



SPECIAL FOCUS



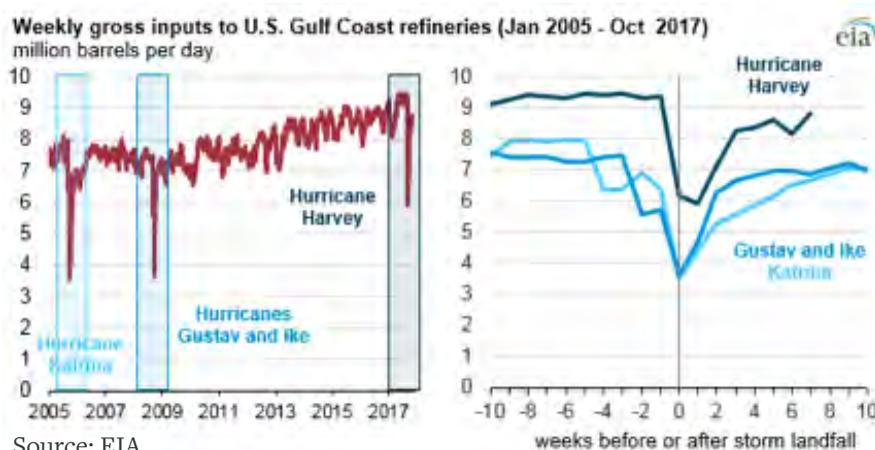
Regional Emergency

Motor Fuel Waivers

During 2017, hurricanes Harvey, Irma, and Maria proved to be major disasters for SSEB Gulf Coast states and the territories of Puerto Rico and the U.S. Virgin Islands. The SSEB Associate Members meeting in September 2017 included a discussion of the impact of recent hurricanes on the motor fuel supply. An Associate Member asked oil company participants to consider reviewing the processes that occur in a disaster scenario in order to better facilitate the supply of motor fuel to consumers, including a review of the process by which EPA and the states obtain emergency motor fuel specification waivers.

When supplies are disrupted or when there is an unusual spike in demand, states work with the petroleum industry to request waivers of certain motor fuel specifications for the purpose of enabling a quicker re-supply of the affected area. The two most common specifications waived are the Reid Vapor Pressure (RVP) and biofuel blending requirements (ethanol) for gasoline. These waivers can be state, federal, or both. State requirements vary. A regional waiver for relaxation of RVP and elimination of ethanol blending allows refiners to produce additional fuel more quickly and enables the existing distribution infrastructure to deliver the needed supplies in less time than would be required without the waivers.

Currently, each individual state must make a request to the EPA to specifically request that RVP requirements are lessened and ethanol blending requirements be suspended. The need for waivers is usually communicated to the state regulators by the petroleum industry – either individual motor fuel suppliers or a trade association such as the American Petroleum Institute. Complicating the emergency fuel waiver picture is the conversion from summer specifications to winter specifications, which occurs on September 15. Unfortunately, the peak of hurricane season also occurs on September 15. Hurricanes making landfall before the transition date are what makes the RVP waiver necessary.



Second Governors Energy Caucus

September 25, 2017

Governor Asa Hutchinson of Arkansas hosted the Second Governors Energy Caucus on September 25, 2017, during the Board's 57th Annual Meeting in Charleston, South Carolina. Governors Phil Bryant of Mississippi, Matt Bevin of Kentucky, and Henry McMaster of South Carolina participated in the event and shared their perspectives on a wide spectrum of energy and environmental topics.

Governor Hutchinson, 2015-2017 SSEB Chairman, formed the Governors Energy Caucus on February 24, 2017, to provide a forum for governors of American states and territories to:

- Confront, address and deliberate on energy issues;
- Share information between and among states and territories;
- Request appearance before this body by any person, including members of Congress, the Administration or the public-at-large, who can further the knowledge and interests of this body;
- Meet as necessary with the U.S. Secretary of Energy to discuss the impact of the Administration's energy policies and the role of the states;
- Appear before Congressional committees, federal forums, or industry meetings regarding the interests of the Caucus; and
- Hold an initial meeting to address Caucus leadership and agenda.

The Third Governors Energy Caucus will convene during our 58th Annual Meeting in September 2018.



Annual Energy Briefing to Southern Legislative Leaders

July 20, 2018

State legislators face challenging and complex decisions that demand thoughtful and innovative policy-making when representing their constituents. The Southern States Energy Board's Annual Energy Briefing to Southern Legislative Leaders is a dynamic forum for addressing many issues related to energy and environmental legislation, federal, and state policies, administrative and regulatory initiatives, and the implications for economic development. SSEB hosted the 2018 briefing in St. Louis, Missouri, on July 20, 2018.

To begin the meeting, Missouri's Senate President Pro Tem, the Honorable Ron Richard, welcomed participants to the Show-Me-State. Honorable Eddie Joe Williams, SSEB's Federal Representative, shared his experiences in recent months to support SSEB's new project to strategize an electric energy policy and regulatory framework in Puerto Rico. SSEB's Secretary and Executive Director, Ken Nemeth, presented data from the 4th edition of Southern States Regional Energy Profiles (July 2018), a report prepared cooperatively with Kentucky's Energy Office within the Energy and Environment Cabinet and the U.S. Department of Energy's Office of Fossil Energy.

Notable legislative trends were highlighted in subjects impacting the Southeast in light of the hurricanes and significant flooding of 2017, support for the Appalachian Storage Hub, protection of critical infrastructure, and reorganization of government agencies and commissions. A panel and roundtable discussion on 2018 legislative action in the states followed with West Virginia Senator Dave Sypolt, Missouri Representative Rocky Miller, and Mr. Rick Eastman of Ameren Missouri sharing with participants significant legislation passed in their respective states.

Members also received outstanding presentations on the subjects of new and emerging end use technologies for natural gas and the energy trends and demands of the future. Members also discussed the 2018 policy resolutions schedule and process and received a preview of the SSEB's 58th Annual Meeting by Honorable Terry Burton, Mississippi Senate President Pro Tempore.





PROGRAMS



Strategizing an Electric Policy and Regulatory Framework in Puerto Rico

Providing Support in Maria's Aftermath

In September 2017, Puerto Rico was devastated by Hurricane Maria with impacts that will last for years to come. During the Southern States Energy Board (SSEB) 57th Annual Meeting in Charleston, South Carolina, Governor Asa Hutchinson introduced resolution number 13.2017 entitled, "Providing Support to Southern States Energy Board Member Jurisdictions in the Aftermath of Hurricane Disasters." SSEB members, including southern governors, legislators, and other state officials, unanimously passed the resolution on September 26, 2017.

The resolution calls for SSEB to offer support to the Governors of Puerto Rico and the U. S. Virgin Islands and the utilities to restore and rebuild their critical electric energy infrastructure and coordinate cooperative assistance with its Associate Members, the nation's energy sector, and the federal government to provide necessary technical support and resources. The resolution provides a framework for SSEB to coordinate the technical capabilities of the Board, Associate Members, and others to assist with the ongoing energy crisis in Puerto Rico and the U.S. Virgin Islands.

In April 2018, the U.S. Department of Energy selected SSEB to lead a project in concert with the Government of Puerto Rico entitled "Strategizing an Electric Policy and Regulatory Framework in Puerto Rico." The project focuses on developing well-informed, unbiased, and innovative

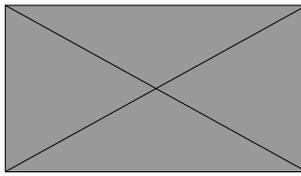
PROJECT GOALS

- I. Work with the Governor and Legislature of Puerto Rico to establish a reliable, affordable, and sustainable electric energy grid system for the Commonwealth.
- II. Develop a policy and legal framework to provide a regulatory regime for a potential privatization of Puerto Rico's electric energy grid system.



regulatory framework models for the Puerto Rican government. To achieve the goals, SSEB is building a stakeholder participation network across multiple sectors, creating potential legislative options for the electric energy grid system, defining the long-term goals and objectives of policies and a regulatory framework, and reviewing risks associated with privatization of PREPA. SSEB recently established a Blue Ribbon Task Force with appointees from a diverse group of organizations to assist in this effort.

In the wake of a catastrophic hurricane season, the strength and perseverance of the Puerto Rican people has consistently presented itself. SSEB is proud to offer its expertise in supporting Puerto Rico's effort to rebuild an electric grid and generation that is more resilient and maintains affordability for both the citizens and industry. To learn more about the current status of the project, visit sseb.org/strategizing-pr.



The Southeast Regional Carbon Sequestration Partnership (SECARB) is a public/private partnership underway at the Southern States Energy Board to ensure the availability of large volumes of carbon dioxide for various industrial purposes including injection into both oil and gas reservoirs for enhanced recovery of products and saline formations for storage. SECARB is one of seven Regional Carbon Sequestration Partnerships (RCSPs) nationwide funded by the U.S. Department of Energy's National Energy Technology Laboratory and cost-sharing partners. The primary goal of the SECARB Partnership is to promote development of a framework and infrastructure necessary for the validation and deployment of carbon dioxide capture and storage (CCS) technologies.

Key to the success of any CCS project is an operator's ability to predict and monitor the flow of CO₂ molecules injected into the subsurface and to communicate this information to stakeholders and regulators. The SECARB Early Test began in 2009 at Denbury Onshore, LLC's active CO₂-enhanced oil recovery operation in the Cranfield oilfield near Natchez, Mississippi. The SECARB team has successfully field-tested a variety of CO₂ monitoring, verification, and accounting (MVA) technologies to determine their commercial viability and robustness. The SECARB MVA program at Cranfield concluded in January 2015, and the cumulative total stored CO₂ mass monitored at Cranfield is 5,371,643 metric tons. The three research wells were safely plugged and abandoned in accordance with the Mississippi Oil and Gas Board rules in April 2015. Denbury's commercial operations continue.

SECARB was the first of the regional carbon sequestration partnerships to begin CO₂ injection and the first to achieve the goal of monitoring a one million metric ton injection. SECARB was the first partnership to store CO₂ under a power plant in Escataupa, Mississippi. Data collected at Cranfield is utilized by the SECARB team and researchers worldwide to further refine reservoir models for similar geologic settings. In 2010, the international Carbon Sequestration Leadership Forum (CSLF) recognized the Early Test project at Cranfield for its efforts in advancing CCS MVA technologies.

Knowledge gained from the Early Test was applied at the Anthropogenic Test site in Alabama, where CO₂ injection began in August 2012. Under separate funding, the CO₂ was captured at Alabama Power Company's James M. Barry Electric Generating Plant located in Bucks, Alabama. The CO₂ was transported 12 miles by pipeline and permanently stored within a deep saline formation at the Citronelle oilfield operated by Denbury. CO₂ injection ended in September 2014; more than 114,000 metric tons of CO₂ was injected and stored at the site. The SECARB partners applied proven and experimental MVA technologies to monitor CO₂ movement in the subsurface during the post-injection phase. The wells were plugged and abandoned in August 2018.

Previous research and technology development conducted under the SECARB Partnership led to the successful commercialization scale up at NRG's Petra Nova plant near Houston, Texas. Today, Petra Nova is the world's largest post combustion carbon capture facility attached to an existing coal-fired power plant. Regarding SSEB's role in the project, NRG Vice President David Greeson responded that "we couldn't have

done this without the SECARB demonstration that convinced our investors of the viability of the technology."

SECARB continues to characterize the region's onshore and offshore geologic storage options, monitor federal and state regulatory and legislative activities, and support education and outreach efforts related to the program.



Plant Barry CO₂ Capture Facility



Petra Nova CO₂ Capture Facility

Southeast Offshore Storage Resource Assessment

SOSRA

The Southern States Energy Board (SSEB) is leading a coalition of southern universities and technical experts to assess prospective geologic storage resources for carbon dioxide (CO₂) in the state and federal waters of three planning areas:

- The Mid-Atlantic
- The South Atlantic
- The eastern Gulf of Mexico

The goal of the Southeast Offshore Storage Resource Assessment (SOSRA) project is to develop a high-level approximation of the amount of CO₂ that might be stored utilizing key geologic and environmental factors which influence the storage potential.



The research includes significant advances in knowledge and technology that facilitate assessment and quantification of offshore CO₂ storage resources in the SOSRA region and provide a pathway toward commercialization.

The project is funded by DOE's National Energy Technology Laboratory, and SSEB serves as the overall lead for the project. To perform the work, SSEB has partnered with Virginia Polytechnic Institute and University's Virginia Center for Coal and Energy Research, the University of South Carolina, and Oklahoma State University for local management of the three planning areas. Virginia Department of Mines, Minerals, and Energy, South Carolina Geological Survey, Geological Survey of Alabama, Advanced Resources International, Inc., and Gerald R Hill, PHD, Inc. also provide technical expertise to the project.

During Phase I the team determined that the data quality and coverage within the study areas were adequate to facilitate a detailed assessment of offshore geology and quantification of CO₂ storage potential. Phase I of the project was completed in 2017 with a recommendation from the team to move into Phase II. Data collection and assessment is underway. The no cost extension was granted in May 2018 as the additional time proves necessary to produce accurate storage resource volume projections. The project concludes in September 2019.

Establishing an Early CO₂ Storage Complex

Project ECO₂S

The Southern States Energy Board (SSEB) is a leading coalition of universities and technical experts to establish a 438 million metric tons of capacity CO₂ Storage Complex adjacent to the Kemper County energy facility.



Project ECO₂S is pursuing key advances in CO₂ storage knowledge and technology, including optimizing CO₂ storage efficiency, modeling the fate of injected CO₂, and establishing residual CO₂ saturations. In addition, Project ECO₂S is involving “real-life” experiences, issues, and challenges of scaling-up from its regional, pre-feasibility assessment of CO₂ storage to establishing a site-specific, CO₂ storage complex, including capturing the “lessons learned” in making this transition.

Project ECO₂S is funded by the U.S. DOE NETL and headed by SSEB. Mississippi Power Company is serving as the site host as well as the primary cost share partner and the source of the CO₂. The project includes technical and field implementation support from Advanced Resources International and will obtain analytical support from two national laboratories (Los Alamos and Lawrence Berkeley), a host of universities (Auburn University, Mississippi State University, Oklahoma State University, Virginia Polytechnic Institute and State University, University of Alabama at Birmingham, and University of Wyoming) and other key participants, including Battelle Memorial Institute and the Geological Survey of Alabama.

Three regionally extensive porous and permeable saline formations with thick confining systems have been identified at the Storage Complex that provide attractive settings for injection and storage of CO₂. The Complex will have the capacity to receive 3 million metric tons per year of CO₂, and potentially three times as much as determined by pre-feasibility models, for a period of at least 30 years.

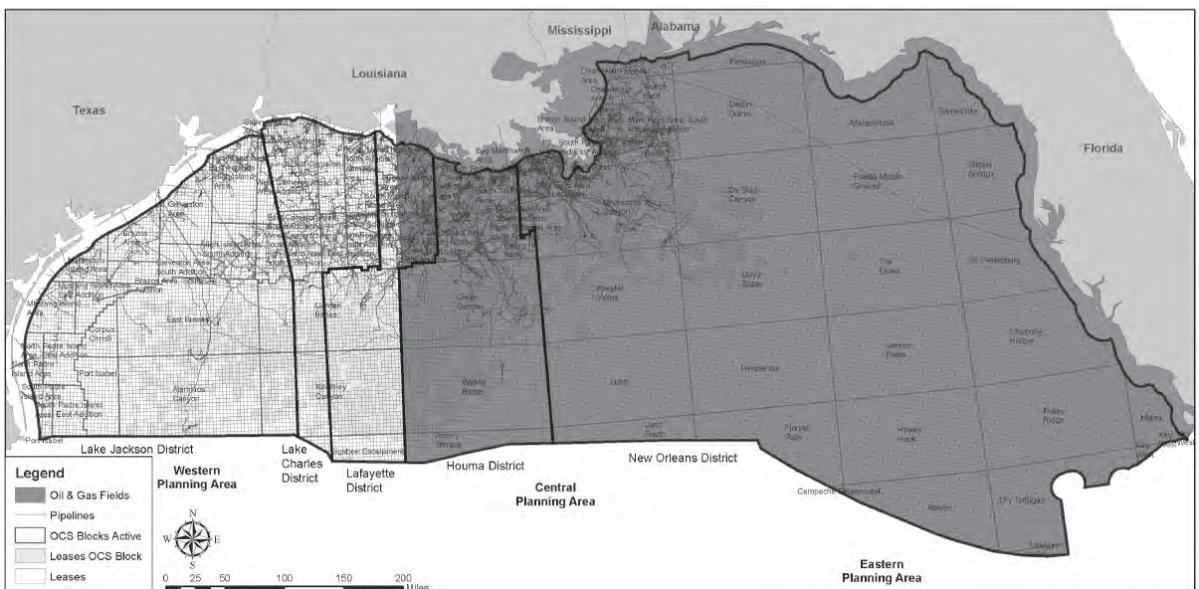
Southeast Regional Carbon Storage Partnership

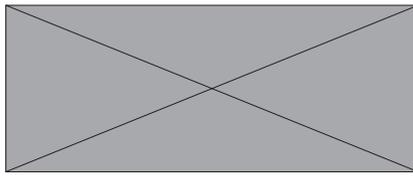
Offshore Gulf of Mexico

Energy production from enhanced oil recovery will continue in the foreseeable future. An environmentally sustainable approach will be required to ensure the availability of the additional large volumes of CO₂ that need to be injected into both oil and gas reservoirs and saline formations to ensure energy security. Therefore, a carbon management approach capable of lowering industrial emissions in a manner that is both economical and publicly acceptable in the long-term is desirable. Associated carbon storage at commercial scale as part of EOR operation or in a saline reservoir shows promise to help meet these goals.

There is a need to facilitate offshore geologic storage of CO₂ in the Gulf of Mexico (GOM) by creating government-industry partnership(s) that are focused on assembling the knowledge base required for secure, long-term, large-scale CO₂ storage, with or without enhanced hydrocarbon recovery. The primary goal of the project is to expand membership of the Southern States Energy Board's (SSEB) existing Gulf of Mexico government-industry partnership to focus on assembling the knowledge base required for secure, long-term, large-scale carbon dioxide (CO₂) subsea storage, with or without enhanced hydrocarbon recovery.

SSEB is leading the partnership of universities and technical experts. The following organizations will contribute to the project, Advanced Resources International, Battelle Memorial Institute, Hill Inc, Geologic Survey of Alabama, Louisiana State University, Oklahoma State University, University of South Carolina, Virginia Polytechnic Institute and State University, The Energy Institute of Alabama, Interstate Oil and Gas Compact Commission, and Mississippi Energy Institute, and SAS.





The Southeast Regional Carbon Sequestration Partnership (SECARB) is a public/private partnership underway at the Southern States Energy Board to ensure the availability of large volumes of carbon dioxide for various industrial purposes including injection into both oil and gas reservoirs for enhanced recovery of products and saline formations for storage. SECARB is one of seven Regional Carbon Sequestration Partnerships (RCSPs) nationwide funded by the U.S. Department of Energy's National Energy Technology Laboratory and cost-sharing partners. The primary goal of the SECARB Partnership is to promote development of a framework and infrastructure necessary for the validation and deployment of carbon dioxide capture and storage (CCS) technologies.

Key to the success of any CCS project is an operator's ability to predict and monitor the flow of CO₂ molecules injected into the subsurface and to communicate this information to stakeholders and regulators. The SECARB Early Test began in 2009 at Denbury Onshore, LLC's active CO₂-enhanced oil recovery operation in the Cranfield oilfield near Natchez, Mississippi. The SECARB team has successfully field-tested a variety of CO₂ monitoring, verification, and accounting (MVA) technologies to determine their commercial viability and robustness.



Clean Coal Energy Policies and Technologies

Committee

The Southern States Energy Board’s Committee on Clean Coal Energy Policies and Technologies has been an active part of the Board’s public/private partnership network since 1984 and continued to pursue the issues facing coal use and the coal industry in 2018. In partnership with the Virginia Coal and Energy Alliance, the two organizations held their 39th Joint Annual Meeting in Kingsport, Tennessee, on May 21-22. SSEB’s Federal Representative, Eddie Joe Williams, welcomed the group and urged the Administration and Congress to act decisively to develop “A New Vision for Coal” that includes a commitment to examine innovative and efficient technologies that keep coal in our base load energy mix across America.

Congressmen Phil Roe of Tennessee and Morgan Griffith of Virginia keynoted the meeting and pledged their support for research and development funding that will enable coal to compete with other fuels in the market. Assistant Secretary of Fossil Energy Steve Winberg and David Zatezalo, Assistant Secretary of Labor, added their expertise to discussions of the energy sector and the need for a balanced generation portfolio to support a reliable electric grid. The combination of environmental regulations, low cost shale gas, renewable portfolio standards, and federal and state renewable subsidies have combined to displace an aging fossil and nuclear fleet that has powered America for decades. Federal policies and incentives are needed to address the technical, regulatory and financial barriers to new technology deployment.

A highlight of the meeting was the Committee’s discussion of the need for transparency in electricity markets. SSEB provided an overview of the importance of transparency to ensure rational function for electricity markets. Recent case studies were highlighted documenting how some resources impart energy resilience to the grid while others convey a resilience penalty. SSEB’s presentation emphasized the importance of coal to the stability of the grid during the “bomb cyclone” of January 2018.

During a roundtable of Committee priorities for coal, members determined that a focus of Board resolutions during the Annual Meeting should be on Electric Grid Resilience, Coal Combustion Residuals, Support for Innovative and Transformational Technologies, Transparency in Energy Markets, and the elimination of Section 111 (b) of the Clean Air Act. Coal Committee members remain active during the year in support of policies and practices that further research and development and methodologies to enhance the use of coal.



Transuranic Waste Transportation

Working Group

The safe transport of Cold War era contaminants remains the primary focus of SSEB's Transuranic Waste Transportation (TRU) Working Group. For nearly 30 years, this group of radiological health professionals and emergency response personnel have worked with DOE's Carlsbad Field Office to develop policies and procedures towards the disposition of transuranic waste from the Oak Ridge National Laboratory and the Savannah River Site to the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. The Board has aided in this endeavor by working with the WIPP corridor states to develop work plans and budgets for specific emergency response programs to support the national campaign and respond to any potential incident involving a shipment. Over the past decade, SSEB has negotiated on behalf of the states to acquire annual funding in excess of \$1 million dollars for training, equipment, emergency response preparedness activities, public outreach programs, shipment tracking, and other resources necessary to maintain the mission of the WIPP project.

Earlier this year, the state of Mississippi held a Waste Isolation Pilot Plant Exercise or WIPPTREX in Pearl, Mississippi. The WIPPTREX allowed first responders in the state along the I-20 corridor to validate their knowledge and skills for remediating an accident involving a TRU Waste shipment. The three-day event scenario included the WIPP transport being involved in an accident with a passenger vehicle and a cargo van carrying an unapproved radiological source. Over the duration of the exercise, several emergency responders, including a volunteer fire department, were allowed to demonstrate their proficiency with the principles of the WIPP emergency response training. In addition to the primary WIPPTREX, a Commercial Vehicle Safety Alliance (CVSA) Level VI inspector dry run was held the day



prior for officers of the Mississippi Department of Public Safety and Department of Transportation. The CVSA Level VI is a rigorous inspection standard designed for the safeguard of shipments transporting specific radioactive materials.

Lastly, with the assistance of Mississippi Governor and SSEB Chairman Phil Bryant the Board was successful in the process of formalizing a Memorandum of Agreement with DOE regarding the Southern States Energy Board's Transportation Planning Guide for the U.S. Department of Energy's Shipment of Transuranic Waste. The Planning Guide contains the principles the DOE Carlsbad Field Office and SSEB region have agreed upon for conducting WIPP shipments.

Southern Emergency Response Council

(SERC)

The Southern Emergency Response Council is a committee responsible for the administration of a mutual aid agreement formalized by 14 southern governors in 1972 to offer state-to-state assistance in the case of a radiological incident involving a nuclear power plant. The SERC signatory states include Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

The actual document that outlines how the protocols would be implemented in the case of such an emergency is the Southern Mutual Radiation Assistance Plan (SMRAP). Created as a blueprint for coordinating radiological emergency assistance capabilities among participating states in the southern region, SERC representatives review, revise, and administer SMRAP on an annual basis to reflect changes in state emergency response capabilities and equipment. This document outlines the mutual aid agreement, the implementation process, emergency response contacts, and available state resources. As a part of the scope of this endeavor, the Southern States Energy Board acts as regional coordinator to simulate the activation of the SMRAP during state nuclear power plant exercises. Since the beginning of the year, several states have incorporated SSEB into their Federal Emergency Management Agency evaluated drills and have made contact to request personnel, equipment, vehicles, and subject matter expertise from their border states.

A SERC meeting is held once per year in conjunction with the Organization of Agreement States meeting. This gathering allows members the opportunity to discuss matters related to SMRAP. The group met recently on August 13, 2018, in Montgomery, Alabama, to ratify the current edition of SMRAP.



Radioactive Materials Transportation

Committee

As of July 2018, SSEB completed the sixth year of a cooperative agreement with the Department of Energy's Office of Integrated Waste Management (IWM) to assist with the development of a strategy to safely transport and dispose of the country's commercial inventory of used nuclear fuel and high-level radioactive waste. Through its Radioactive Materials Transportation Committee, the Board collaborates with DOE to address policy issues, shipment planning and preparedness, and communications protocols. The Committee of gubernatorially appointed professionals, representing various disciplines, meets biannually to develop regional directives and receive program updates from IWM and other federal agencies associated with the national program.

In March of 2018, SSEB staff attended the Nuclear Waste Technical Review Board's Spring Meeting in Washington, D.C. The meeting provided an international perspective as several experts representing foreign countries discussed matters associated with the monitoring and retrievability of emplaced high-level radioactive waste and spent nuclear fuel. The following month, SSEB staff was accompanied by a Radioactive Materials Transportation Committee representative from Tennessee to participate in Isotopes Crossroads: Memphis. The activity was a no-fault discussion based Radiological Transportation Security Table Top Exercise. The event promoted information sharing, joint situational awareness, team building, and problem resolution in a crisis response incident involving radiological materials in commercial transit. The scenario required key interaction and communication between personnel from multiple levels of government responding to a security incident involving radiological materials in transit. Because the exercise was based in Memphis and applied specific attributes (routes, transportation companies, and response procedures), it provided a unique opportunity to examine how existing training, equipment, and resources were used in the emergency response.



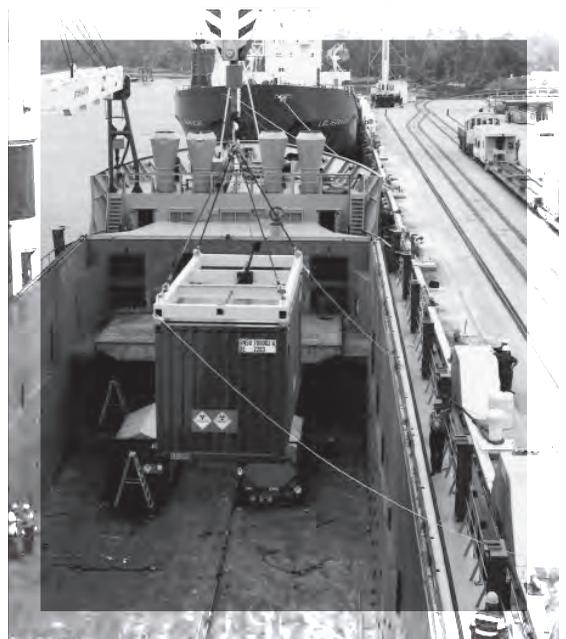
Foreign Research Reactor Spent Nuclear Fuel

Transportation Working Group

The Southern States Energy Board and the National Nuclear Security Administration (NNSA) continue to maintain their efforts to promote the nation's non-proliferation policy. In conjunction with the Office of Material Management and Minimization (M3), SSEB has assisted in the domestic planning logistics associated with the removal and/or disposal of United States-origin, highly-enriched uranium (HEU) and low-enriched uranium from foreign countries. The history of this program spans from the early 1990's when the Department of Energy enlisted the efforts of the Board for an urgent relief shipment of these materials entering the United States via a military port in North Carolina en route to the Savannah River Site (SRS). SSEB responded by creating an ad hoc committee (Foreign Research Reactor Spent Nuclear Fuel Transportation Working Group) composed of professionals representing various disciplines to oversee the coordination, transportation and emergency response planning efforts associated with the return of these materials. As the program evolved, the Naval Support Activity Charleston would be designated as the east coast port of entry thus linking SSEB's involvement until the conclusion of the shipping campaign.

The Working Group hosts a conference call for the planning of each shipment destined for SRS. To date 67 shipments, the majority (55) of which have entered the United States via the southern region (Naval Support Activity Charleston),

have been completed from 33 countries. In addition, 10 cross-county shipments have been conducted to move fuel from Charleston to the Idaho National Laboratory (INL). Meanwhile, the U.S. Nuclear Materials Removal Program involving the repatriation of HEU from the Chalk River facility in Ontario has continued to progress without incident. These shipments consisting of fuel assemblies from the National Research Experimental Reactor and liquid target residue material began in 2015 and are scheduled for completion in 2020. The majority of M3's domestic movements traverse many southern corridor states en route to their eventual disposition at SRS or INL. Therefore, SSEB will continue working with the department and its member states along the shipping routes to ensure these campaigns are carried out in a safe and efficient manner.



Energy and Environment Legislative Digest

Published September 1, 2018

The Southern States Energy Board’s Legislative Digest serves as a compendium of energy and environmental legislation passed by the Board’s 18 member states and territories. For more than four decades, SSEB has published the annual digest as a reference tool and guide for state legislators and their personnel. During the 2018 legislative sessions, our members passed more than 250 energy and environmental bills.

Within the digest, there are many bills relating to pipelines, generation, infrastructure development, transmission, and siting concerns as well as the evolving markets pursuant to alternative energy development.

This year, Kentucky and West Virginia both approved resolutions urging federal policymakers to support identified legislation and other bills, resolutions, or policies advancing the development of an Appalachian Storage Hub. Southern States Energy Board passed a resolution at last year’s annual meeting calling for prioritizing construction of the Appalachian Storage Hub.

Louisiana passed a law amending the definition of “critical infrastructure” to include oil and gas facilities. The measure criminalizes damage to a

critical infrastructure and provides for penalties. This bill is similar to other critical infrastructure protection laws being passed around the country, including in Iowa, Idaho, and Oklahoma.

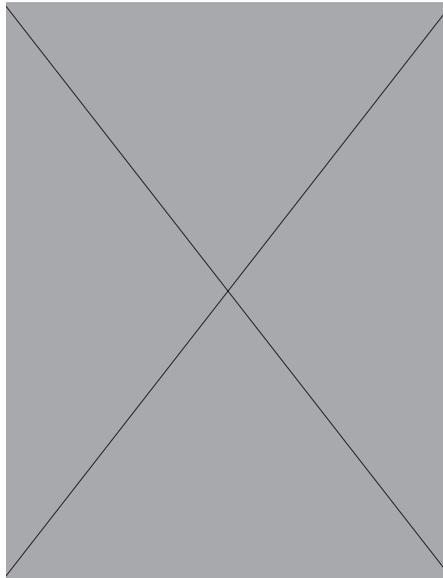
As we have seen in recent years, oil and natural gas infrastructure and development bills are popular within our member states. West Virginia, for example, provided an exception to waste and

trespass for certain oil and natural gas use and development to encourage the efficient economic development of oil and natural gas resources.

The Puerto Rico legislature passed an historic bill that creates the “Puerto Rico Electric System Transformation Act.” The bill declares that any partnership agreement

or sale agreement will be subject to the energy public policy and regulatory framework. For these purposes, a working group will be created, which will be responsible for preparing and recommending for the corresponding approvals the energy public policy and regulatory framework.

Download a digital copy of the complete digest by visiting our website at www.sseb.org/reference.





PARTNERSHIPS



Our Partners

Ongoing Collaborative Efforts

The Southern States Energy Board has many collaborative efforts underway and through these robust partnerships with government, business, industry, and academia, SSEB states and territories benefit from the expertise of energy and environmental leaders in the country.

The core of this strategy pivots on the Board's Associate Members who represent the region's and nation's energy providers, resource companies, educational institutions, and technology developers. The SSEB Associate Members program was founded in 1981 by Kentucky Governor John Y. Brown during his chairmanship. The Associate Members act in an advisory capacity to the Board. With increasing interest from the region's prominent energy industries and organizations, SSEB gains a broad depth of knowledge and diverse perspectives on the impact of energy and environmental policies and regulations on the region's economy.

SSEB participates on the U.S. Technical Advisory Group of the International Organization for Standardization (ISO) Technical Committee 265 for the development of guidance and standards for carbon capture, transportation, and geological storage. Knowledge gained from SSEB's carbon management programs is being transferred through the ISO process to ensure that standards are both technically sound and that the South's position is represented. SSEB also is a founding member of the Global CCS Institute, an international organization focused on accelerating the deployment of CCS as an imperative technology.

Through a collaborative effort with the U.S. Department of Energy's Office of Fossil Energy and the U.S. Energy Association, the Board became a founding stakeholder in the Carbon Sequestration Leadership Forum in 2003. The policy and technical forums of CSLF further international cooperation and understanding of carbon dioxide capture, utilization, and storage; legal and regulatory issues; intellectual property; and many related matters. The CSLF has recognized SSEB's two SECARB Partnership projects as international programs of excellence.

SSEB also works closely with the Government of Canada. This consular presence promotes business development, investment, tourism, culture, and information exchange between Canada and SSEB states and territories. The Board's partnership with Consuls General offices throughout the South has resulted in economic, educational, and scientific opportunities for our member states.

On a national level, SSEB is an affiliate member of the National Association of State Energy Officials. In this relationship, SSEB works closely with state energy office directors in the southern region on a wide array of programs, ranging from energy efficiency, weatherization, and energy security and infrastructure.

To foster regional cooperation and collaboration, the Board continues a strong working relationship with other regional organizations such as the Eastern Interconnection States Planning Council, the Southern Legislative Conference of the Council of State Governments, the Southeastern Association of Regulatory Utility Commissioners, the Virginia Coal and Energy Alliance, the Carbon Utilization Research Council, and the Southeast Energy Efficiency Alliance. SSEB strives to foster ongoing relationships with other regional and state organizations with similar goals.

SSEB's Radioactive Materials Transportation Committees have worked in conjunction with their counterpart committees of the other "state and tribal regional groups" including the Council of State Governments (Northeastern and Midwestern Offices), Western Interstate Energy Board, National Conference of State Legislatures, and Western Governors' Association. This collaboration has resulted in the development of national policy and initiatives between the states, tribes, and Department of Energy for consultation and cooperation regarding issues associated with the safe transport of radioactive materials.

These are only a few examples of the collaborative relationships SSEB experiences through its diverse partnerships. Building partnerships is an essential goal of the Board in order to leverage opportunities and expand its expertise to assist its member states. These collaborations allow SSEB to focus its program and financial commitments to the benefit of the entire southern region.



Educating Stakeholders

Meetings and More

Southern States Energy Board prioritizes outreach and education through a variety of venues including keynote presentations, panel discussions, conferences and workshops, exhibits, and myriad activities meant to engage public officials and other stakeholders. SSEB strives to enhance and improve understanding and awareness of domestic energy development, energy and environmental policies, and clean energy technologies and their importance in the region. Examples of significant engagements from the past year include:

- EBI Energy and Environmental Summit, States Adapting to Changes in the Energy Game Board | Presenter
- West Virginia Manufacturing Association, Building Energy Infrastructure in the Southern States | Presenter
- Puerto Rico Chamber of Commerce Annual Meeting, Strategizing an Electric Energy Policy and Regulatory Framework in Puerto Rico | Presenter
- CO₂ Carbon Management Workshop, SSEB Perspectives on Carbon Management Policies, Regulatory Issues and Projects | Presenter
- Southeast Environmental Conference, Electricity Issues in the South | Presenter
- American Coal Ash Association, The Future of Electricity: An Overview | Presenter
- Energy Institute of Alabama Energy Day, Future of Energy Industry in the South | Co-sponsor and Moderator
- SSEB Associate Member Meetings | Host
- SSEB Annual Energy Briefing to Southern Legislators | Host and Presenter
- State Energy Offices | Briefing on SSEB Programs and Activities
- SECARB 13th Annual Stakeholder Briefing and Knowledge Sharing Series | Host
- National Nuclear Materials Transportation Stakeholder Forum and Radioactive Materials Transportation Committee Meetings | Host
- Virginia Coal and Energy Alliance, SSEB, and Virginia Center for Coal and Energy Research's 39th Annual Conference and Expo, "The New Vision for Coal" | Co-sponsor and Presenter
- SSEB Committee on Clean Coal Energy Policies and Technologies Meeting | Host
- American Petroleum Institute's Southern Region Meeting, Regional Motor Fuel Waivers Discussion | Presenter
- Research Experience in Carbon Sequestration (RECS) Program | Co-sponsor and CCS Field Site Host
- Government Consulates (Germany, Canada, Britain) | Participant
- National Governors Association, NARUC, Southface, NASEO, Southeastern Association of Regulatory Utility Commissioners, Industrial CCS, State Regional Energy Profiles, Clean Energy Vehicles, Southface Energy Institute, IEEE-PES | Participant

Sources of Support

FY 2017-2018

The Southern States Energy Board’s primary source of funding is its annual appropriations from the 18 member states and territories. Each member’s share is computed by a formula written into the original compact. This formula is composed of an equal share, per capita income, and population. The Board has not requested an increase in annual appropriations since 1987. The compact authorizes the Board to accept funds from any state, federal agency, interstate agency, institution, person, firm, or corporation provided those funds are used for the Board’s purposes and functions. This year, additional support was received for research projects from grants and cooperative agreements.

Additionally, SSEB continues to lead an Associate Members program composed of industry partners who provide an annual contribution to the Board. Membership includes organizations from the non-governmental sector, corporations, trade associations, and public advocacy groups. The Associate Members program provides an opportunity for public officials and industry representatives to exchange ideas, define objectives, and advance energy and environmental planning to improve and enhance the South’s economic and environmental well-being.

In addition, the SSEB carbon management program’s industry associates and partners provide monetary sponsorships to complement the Board’s CCS projects and activities. SSEB also receives corporate sponsorships, registration fees, and in-kind contributions to support the expenses associated with the SSEB annual meeting and other events.

State Appropriations

<u>Alabama</u>	\$32,572	<u>North Carolina</u>	\$37,042
<u>Arkansas</u>	\$31,027	<u>Oklahoma</u>	\$32,512
<u>Florida</u>	\$47,212	<u>Puerto Rico</u>	\$25,597
<u>Georgia</u>	\$35,782	<u>South Carolina</u>	\$31,372
<u>Kentucky</u>	\$32,197	<u>Tennessee</u>	\$34,267
<u>Louisiana</u>	\$33,817	<u>Texas</u>	\$55,402
<u>Maryland</u>	\$37,192	<u>U.S. Virgin Islands</u>	\$25,297
<u>Mississippi</u>	\$29,077	<u>Virginia</u>	\$38,362
<u>Missouri</u>	\$36,247	<u>West Virginia</u>	\$28,732

Membership

2017-2018

Executive Committee



Chair

The Honorable Phil Bryant
Governor of Mississippi



Chair-Elect

The Honorable Matt Bevin
Governor of Kentucky



Vice Chair

Rep. Randy Davis
Alabama



Treasurer

Rep. Weldon Watson
Oklahoma



Member

The Honorable Asa
Hutchinson
Governor of Arkansas



Member

The Honorable Kenneth
Mapp Governor of U.S.
Virgin Islands



Member

Rep. William Sandifer
South Carolina



Member

Rep. Lynn Smith
Georgia



Member

Sen. Mark Norris
Tennessee



Member

Sen. Brandon Smith
Kentucky



SLC E&E Chair

Sen. Ed Emery
Missouri



Federal Representative

Eddie Joe Williams



Secretary

Kenneth Nemeth
SSEB

Board Members

Alabama

The Honorable Kay Ivey,
Governor

Senator Jimmy W. Holley

Senator Cam Ward (Alternate)

Representative Randy Davis

Representative Howard

Sanderford (Alternate)

Arkansas

The Honorable Asa Hutchinson,
Governor

Senator Bruce Maloch

Senator Gary Stubblefield

(Alternate)

Mr. Michael Chapman (House
Appointee)

Commissioner Ted Thomas
(Governor's Alternate)

Ms. Katie Beck (Governor's
Alternate)

Florida

The Honorable Rick Scott,
Governor

Representative Mike La Rosa

Representative Jay Trumbull

(Alternate)

Ms. Kelley Burk (Agriculture
Commissioner's
Appointee)

Georgia

The Honorable Nathan Deal,
Governor

Senator Jeff Mullis

Representative Lynn Smith

Representative Chuck Martin
(Alternate)

Ms. Lauren Curry (Governor's Alternate)

Kentucky

The Honorable Matt Bevin, Governor
Senator Brandon Smith
Representative Jim Gooch, Jr.
Secretary Charles Snavely (Governor's Alternate)

Louisiana

The Honorable John Bel Edwards, Governor
Senator Dan Claitor
Senator Gerald Long (Alternate)
Representative Raymond Garofalo, Jr.
Representative Blake Miguez (Alternate)
Mr. Robert Adley (Governor's Alternate)

Maryland

The Honorable Larry Hogan, Governor
Senator Thomas McLain (Mac) Middleton
Senator Katherine Klausmeier (Alternate)
Delegate Dereck E. Davis
Delegate Sally Y. Jameson (Alternate)
Dr. Mary Beth Tung (Governor's Alternate)

Mississippi

The Honorable Phil Bryant, Governor
Senator Terry C. Burton
Representative Gary Staples
Representative Angela Cockerham (Alternate)

Missouri

The Honorable Michael Parson, Governor

Senator Ed Emery
Senator Jeanie Riddle (Alternate)
Representative Rocky Miller
Representative Tim Remole (Alternate)
Dr. Kayla Hahn (Governor's Alternate)

North Carolina

The Honorable Roy Cooper, Governor
Senator Trudy Wade (Alternate)
Representative John Szoka
Representative Dean Arp (Alternate)

Oklahoma

The Honorable Mary Fallin, Governor
Senator Mark Allen
Senator Casey Murdock (Alternate)
Representative Weldon Watson
Representative Mark McBride (Alternate)
Representative Charles Ortega (Alternate)
Secretary Michael Teague (Governor's Alternate)

Puerto Rico

The Honorable Ricardo Rosselló, Governor
Senator Lawrence Seilhamer
Representative Victor Parés Otero

South Carolina

The Honorable Henry McMaster, Governor
Senator Lawrence Grooms
Senator Thomas C. Alexander (Alternate)
Representative William E. Sandifer
Mr. Rick Lee (Governor's Alternate)

Tennessee

The Honorable Bill Haslam, Governor
Senator Mark Norris
Senator Ken Yager (Alternate)
Representative John Ragan

Texas

The Honorable Greg Abbott, Governor
Senator Craig Estes
Representative Drew Darby
Commissioner Christi Craddick (Governor's Alternate)

U.S. Virgin Islands

The Honorable Kenneth Mapp, Governor

Virginia

The Honorable Ralph Northam, Governor
Senator Frank Wagner
Senator John S. Edwards (Alternate)
Senator John Cosgrove (Alternate)
Delegate James W. Morefield
Delegate Charles D. Poindexter (Alternate)
Delegate Israel D. O'Quinn (Alternate)

West Virginia

The Honorable Jim Justice, Governor
Senator Randy Smith
Senator Dave Sypolt (Alternate)

Associate Member Officers



Chair
Dave Cagnolatti

Chair	Mr. Dave Cagnolatti, Phillips 66
Vice Chair	Mr. George Guidry, Koch Companies Public Sector, LLC
2nd Vice Chair	Ms. Jennifer Jura, Edison Electric Institute
Immediate Past Chair	Mr. William Droze, Troutman Sanders, LLP

Associate Members

Ameren Missouri	Chemical & Metal Technologies LLC	Koch Companies Public Sector, LLC	Quanta Services
American Chemistry Council	Chevron U.S.A. Inc.	Marathon Petroleum Corporation	SCANA Corporation
American Coalition for Clean Coal Electricity	Coalition for Fair Energy Codes	Midwest Energy Emissions Corp.	Shell Oil Company
American Electric Power	American Forest & Paper Association	National Coal Council	South Carolina Public Service Authority/ Santee Cooper
American Fuel & Petrochemical Manufacturers	Cooperative Energy	National Mining Association	Southern Company
American Gas Association	Dominion Energy	National Rural Electric Cooperative Association	Tennessee Valley Authority
American Petroleum Institute	Duke Energy	Nuclear Energy Institute	Troutman Sanders, LLP
BP	Edison Electric Institute	NuScale Power, LLC	Virginia Center for Coal & Energy Research
Carbon Utilization Research Council	Energy Policy Network	PACE	Virginia Coal and Energy Alliance
Charah, Inc.	Exxon Mobil Corporation	Peabody	West Virginia University
	INTUS, Inc.	Phillips 66	
	JET, Inc.		

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Notes

Notes

The background of the entire page is a photograph of the Statue of Liberty in silhouette, set against a vibrant sunset sky. The sun is a bright, glowing orb in the center, partially obscured by the statue's crown. The sky is filled with soft, wispy clouds in shades of orange, red, and pink. The entire image is framed by a thin white border.

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